Issue 210
PS
1970 Series
May
THE PREVENTIVE MAINTENANCE MONTHLY
FIRE ORDER? UH-YEAH, YES-UH-OK- WELL, COULD YOU WAIT AWHILE? WE'RE LIKE CATCHIN' UP ON SOME PM!
Will Eisner

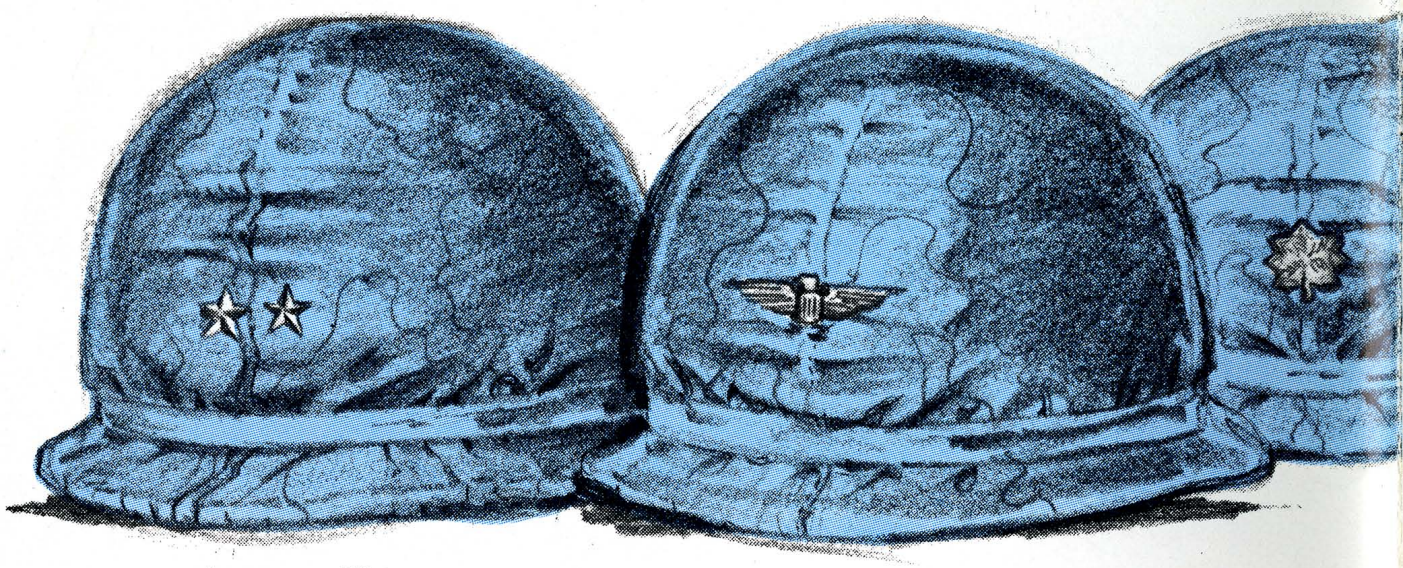
FOR PM YOU NEED

RESPONSIBI

THAT 4 (teen)-LETTER WORD

Some guys shy away from it – that word. They're afraid of it. Some guys just shrug it off. They never think it's got anything to do with them. Some guys don't even know what it means. They never learned.

But every man's got to accept it sometime, if he's going to do any good for himself – and for others who depend on him.



"That word" is:

R-e-s-p-o-n-s-i-b-i-l-i-t-y.

A big word with a simple meaning – a job you're expected to do.

There're people in the Army who carry a lot of responsibility – like your CO. He's responsible for all the men and all the equipment in your outfit. Even bigger, he's responsible for the mission of your outfit.

Vital to that mission is Preventive Maintenance of equipment. This's maintaining equipment to prevent its breakdown. Or it's correcting small problems to prevent bigger problems.

Without constant, conscientious preventive maintenance, equipment will fail. Without equipment, the mission will fail.

Success or failure of a mission depends a great deal, then, on every man in your outfit carrying his responsibility for preventive maintenance of his equipment.

There's a bonus in it for you –

Like physical exercise strengthens your body, exercising your responsibility strengthens you. Both are vital to the success of your mission.

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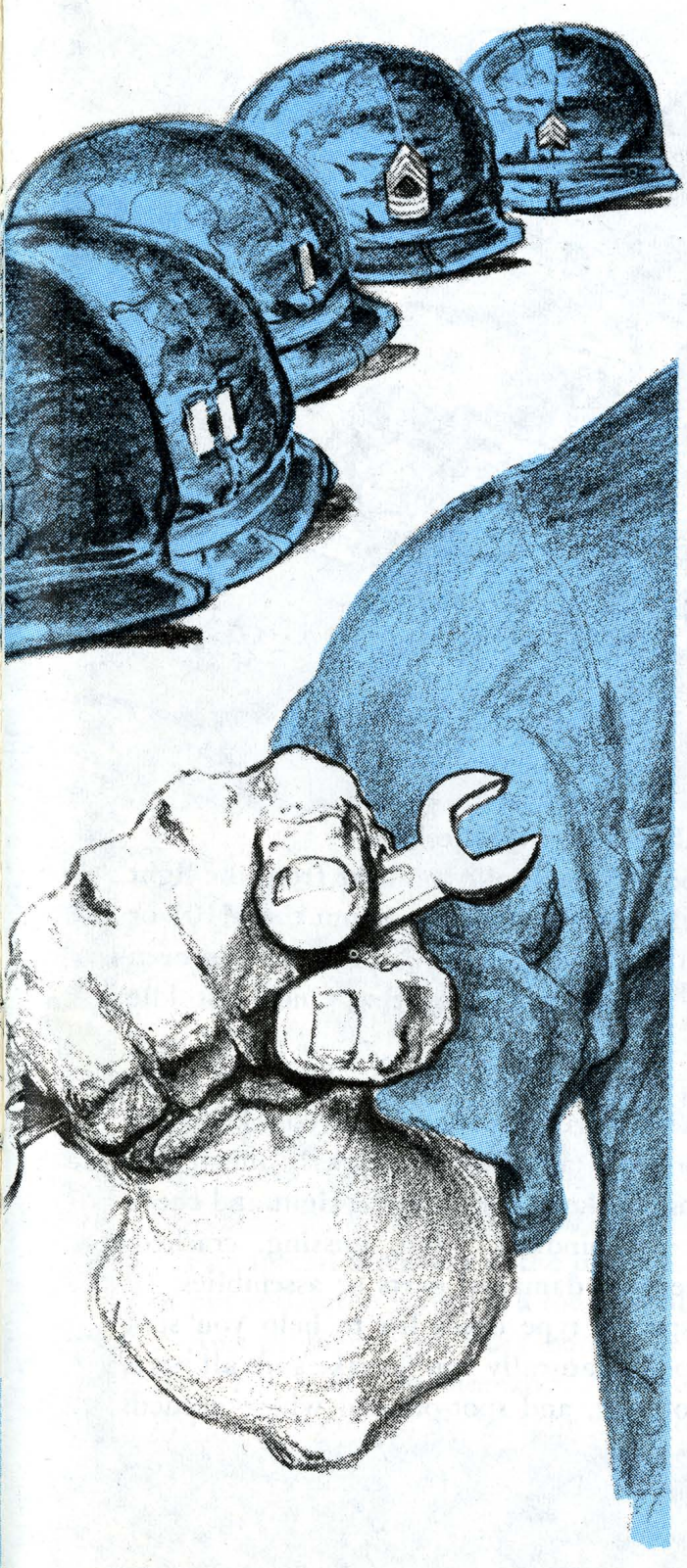

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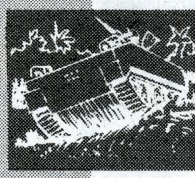

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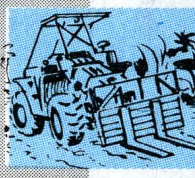

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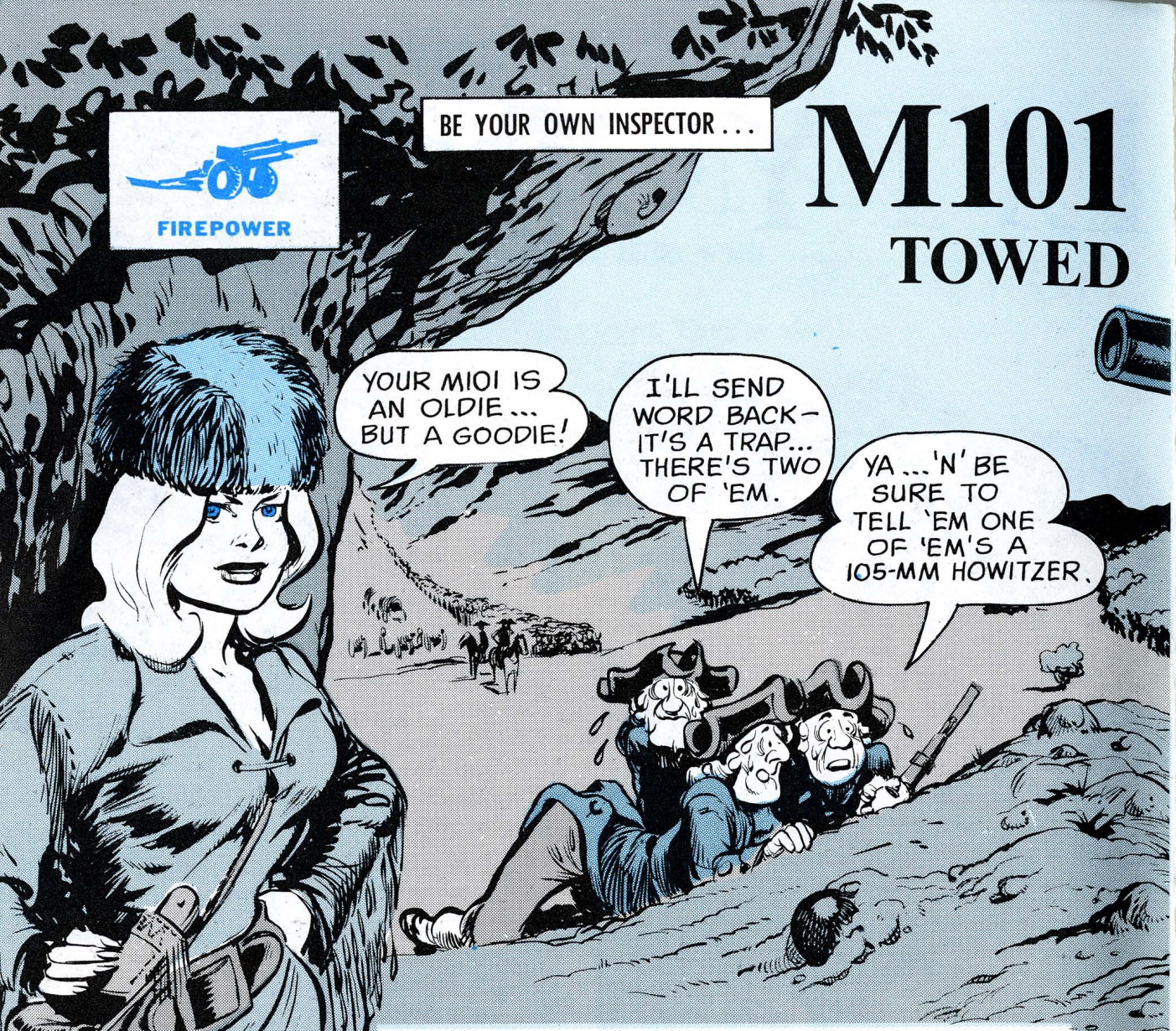


Rugged, reliable, a beauty, the best!

That's the kind of proud talk you hear from the light artillery types when they're yakking about the M101 or M101A1, 105-MM towed howitzer. And, if you've been around anytime at all you know that's not just idle chatter.

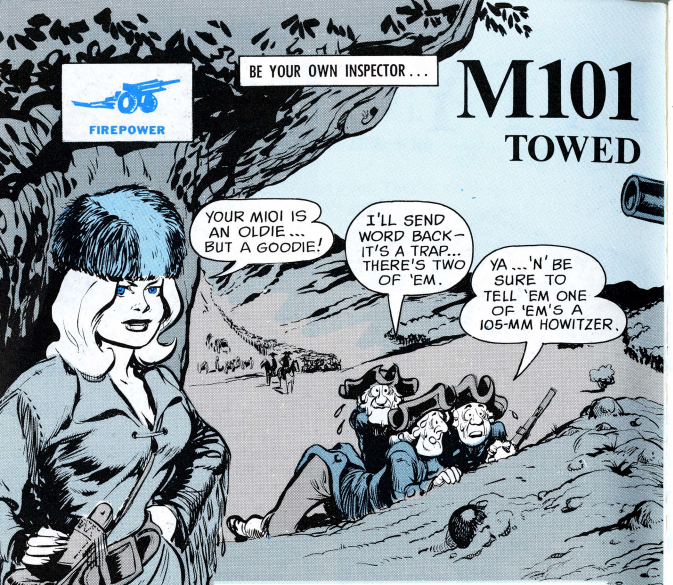
To stay in top shape, of course, your howitzer needs regular care. And, regular care means you keep the weapon clean and dry as possible, properly lubed and painted. It means you keep her adjusted right and check carefully for loose, binding, worn, missing, cracked, corroded or otherwise damaged parts or assemblies.

Here's an inspector type check-list to help you spot check your weapon. Naturally you'll make sure all parts are clean, free of rust, and spot-painted where needed.

FIREPOWER

BE YOUR OWN INSPECTOR . . .

M101 TOWED



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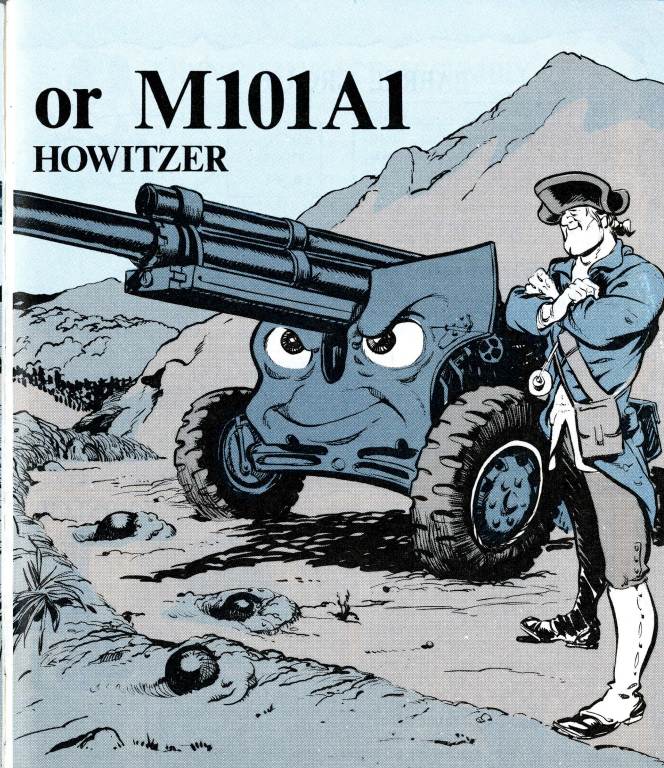
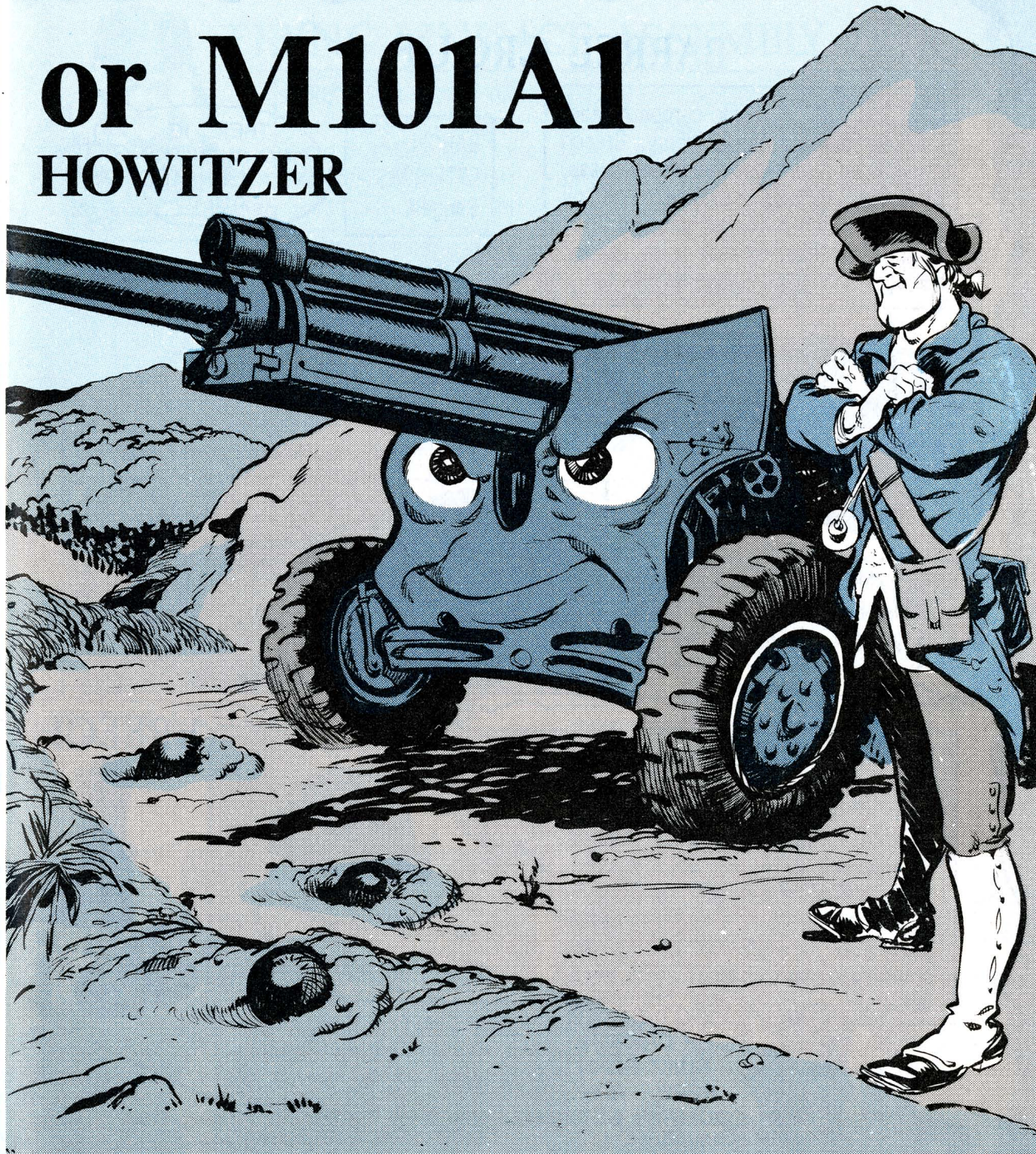


Pay special attention to the problems listed in **bold type.** They'll get you gigs or put you out of action in a tough spot.

Any problems you can't handle get passed on to your support outfit quick-like. The MAC (Maintenance Allocation Chart) is in Ch 2, 5 and 7, TM 9-325. PM check points on the weapon are listed in the TM's Ch 6.

PS MORE

or M101A1 HOWITZER



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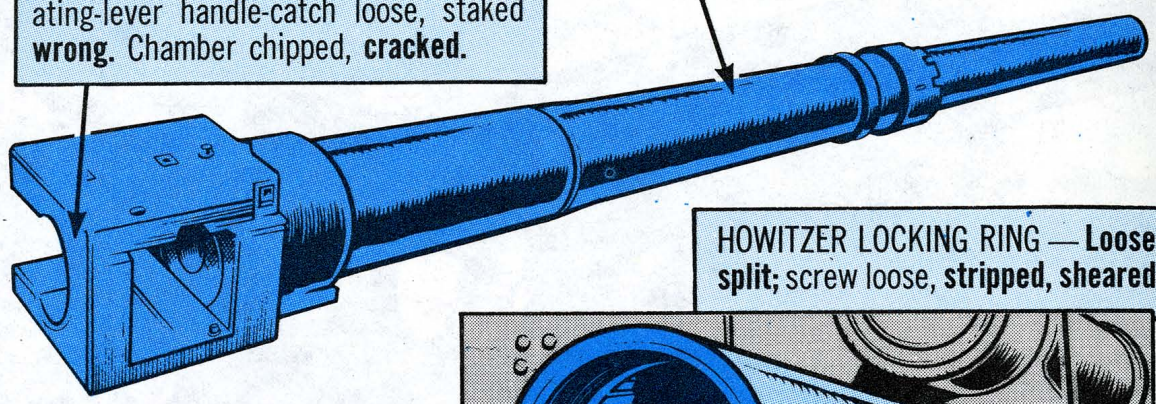
BARREL GROUP

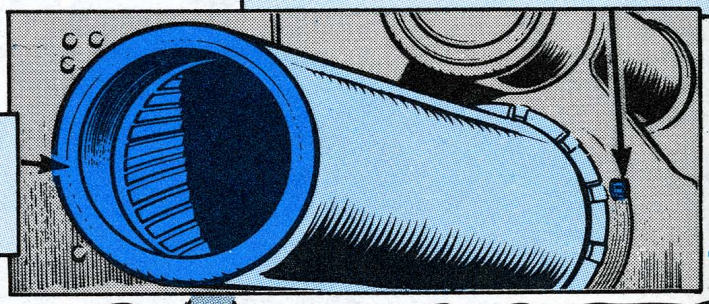
BREECH RING — Inside carbon coated, nicked, burred, needs lubing. Breech ring locking screw **seated wrong, loose, missing,** threads **stripped.** Leveling plates scratched, burred, painted. Operating-lever handle-catch loose, staked **wrong.** Chamber chipped, **cracked.**

BARREL EXTERIOR — **Gouged.**

THERE IS NO SUCH THING AS AN UNIMPORTANT FAULT!



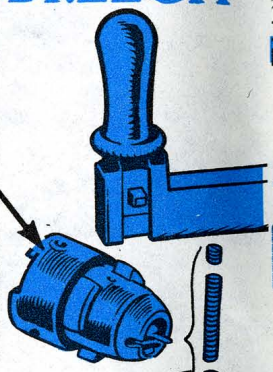
HOWITZER LOCKING RING — **Loose, split;** screw loose, **stripped, sheared.**

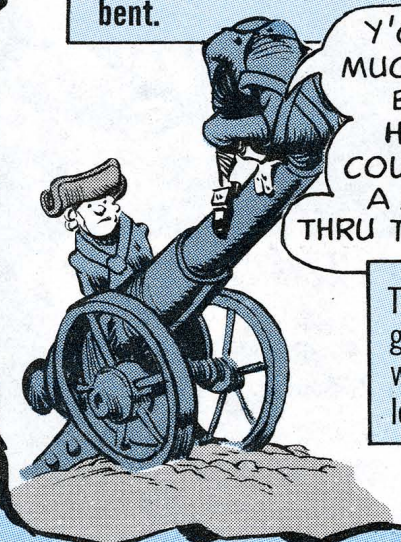


BORE/MUZZLE — **Cracked,** needs lubing. Bore lands **raised, flattened, gouged, chipped, sheared.**

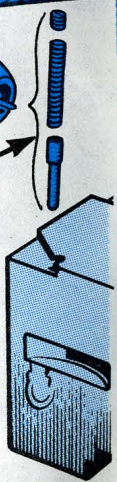
BREECH

FIRING LOCK — Firing pin **worn, deformed;** firing pin holder or its sleeve worn, **damaged;** cotter pin **missing,** sheared; firing spring **weak, kinked, missing;** sear worn; sear spring **missing, weak, kinked; wrong** sear spring. (The right sear spring is a must. It comes under FSN 1015-502-1092.) Firing case **cracked;** trigger fork **binds, stuck,** worn, **bent.**

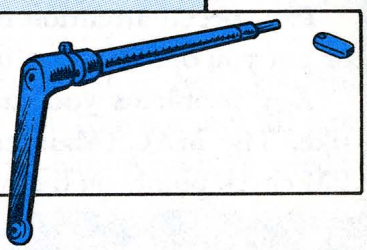




TRIGGER SHAFT DETENT ASSEMBLY — Detent spring-retaining-screw **loose, missing,** burred; detent spring worn, kinked, **missing;** trigger shaft detent worn, **cracked, missing.**



TRIGGER SHAFT ASSEMBLY — Trigger-shaft detent-handle **missing,** worn; trigger shaft **bent,** worn, loose; arm burred, **cracked, bent.**



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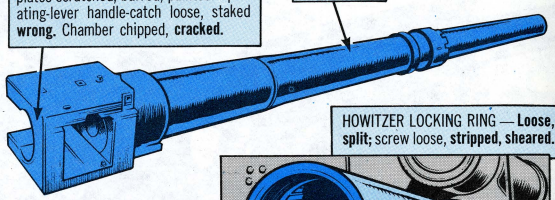

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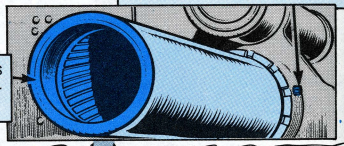

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BREECH MECHANISM

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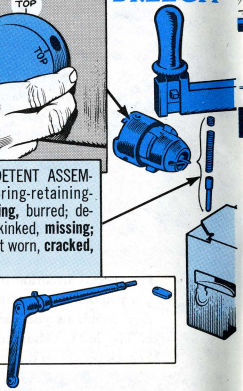
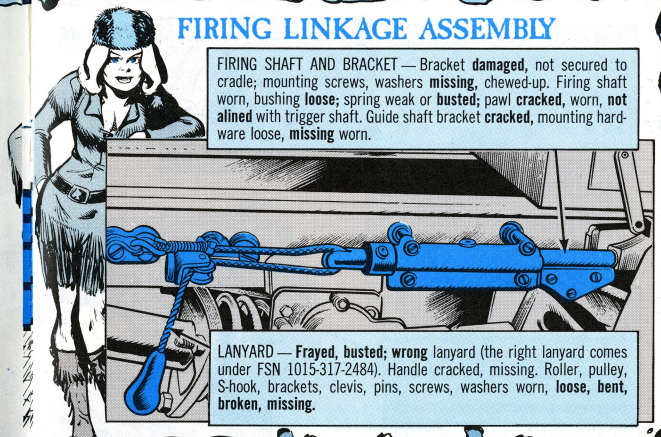


FIRING LINKAGE ASSEMBLY

FIRING SHAFT AND BRACKET — Bracket **damaged,** not secured to cradle; mounting screws, washers **missing,** chewed-up. Firing shaft worn, bushing **loose;** spring weak or **busted;** pawl **cracked,** worn, **not alined** with trigger shaft. Guide shaft bracket **cracked,** mounting hardware loose, **missing** worn.

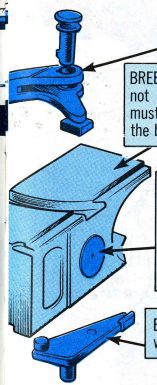


LANYARD — **Frayed, busted; wrong** lanyard (the right lanyard comes under FSN 1015-317-2484). Handle cracked, missing. Roller, pulley, S-hook, brackets, clevis, pins, screws, washers worn, **loose, bent, broken, missing.**

MECHANISM

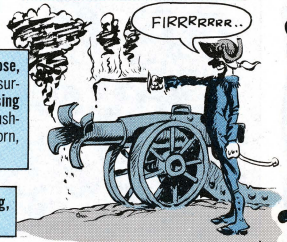
BREECHBLOCK OPERATING LEVER ASSEMBLY — Lever **cracked, bent,** burred; handle pin **missing,** spring weak, **missing;** crosshead worn, burred, cracked; crosshead locking screw **loose, damaged, lost;** lever pivot burred, binding.

BREECHBLOCK — **Cracked,** burred, not lubed. Breechblock **binds.** (It must slide smoothly in and out of the breech ring.)



BREECHBLOCK BUSHING — **Loose,** or **not flush** with breechblock surface; lock screw **loose, missing** (screw head must be below bushing surface); firing-pin hole worn, nicked, burred.

EXTRACTOR — **Broken, missing,** worn, sluggish.



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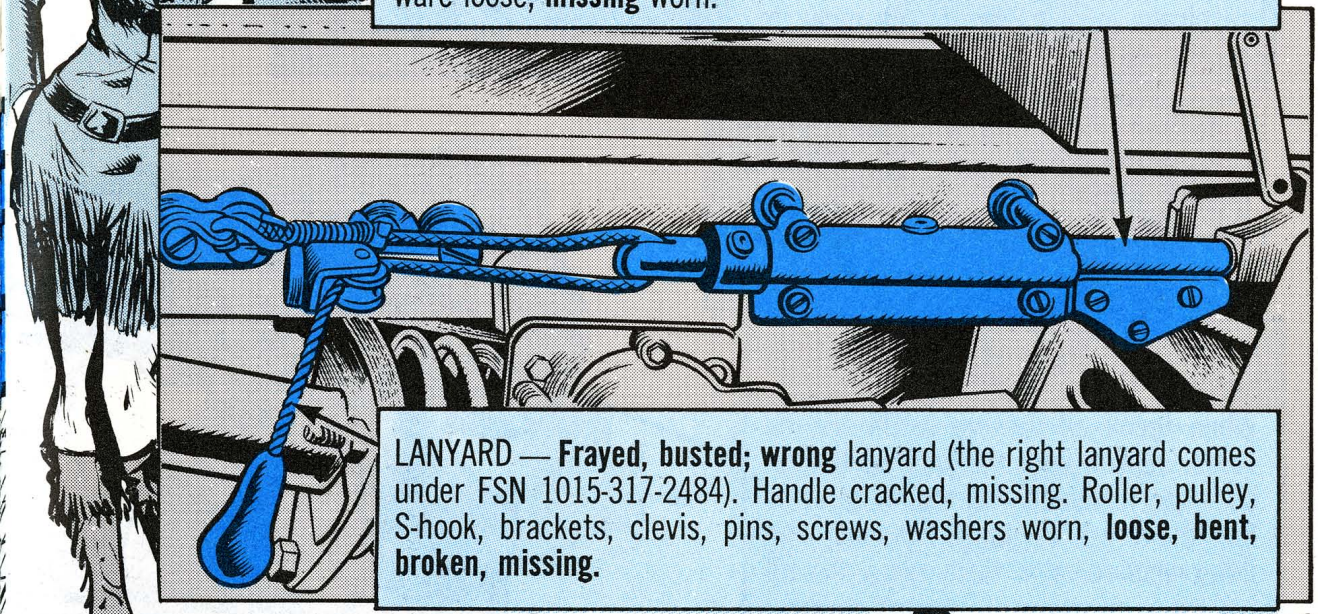

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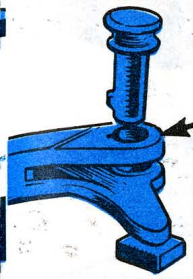

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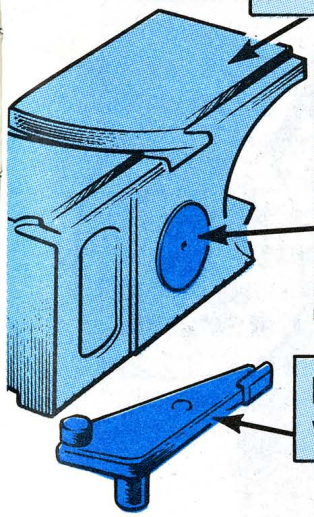

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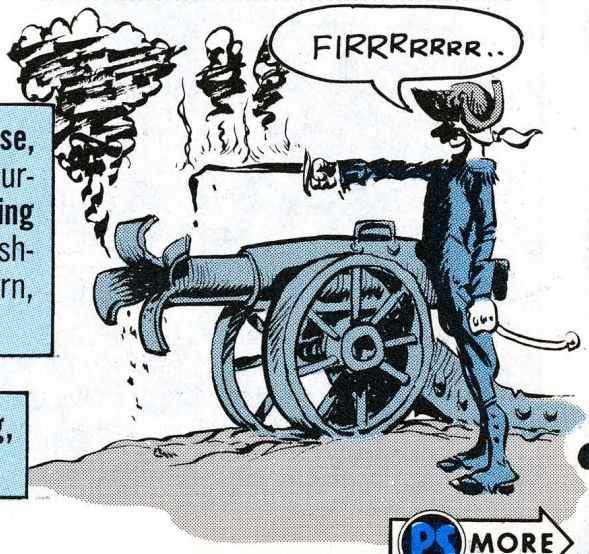
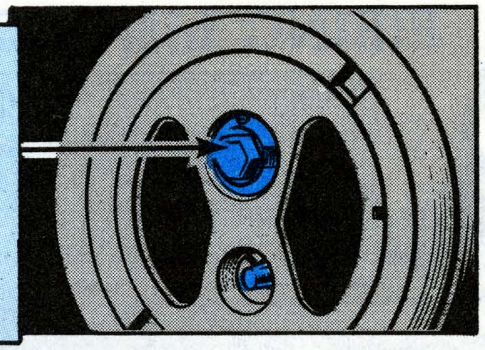


PS MORE

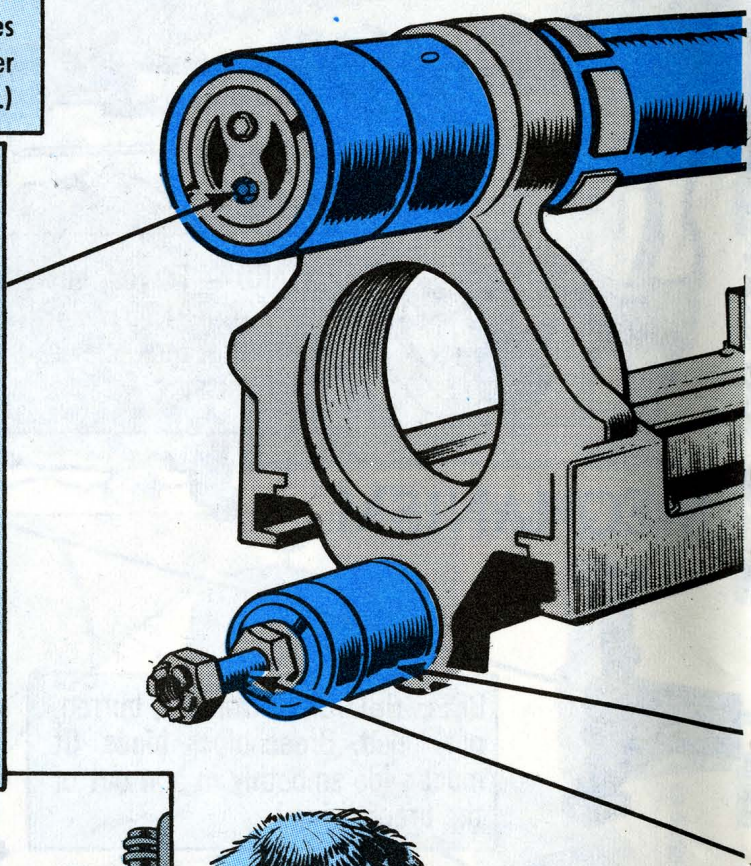
RECOIL

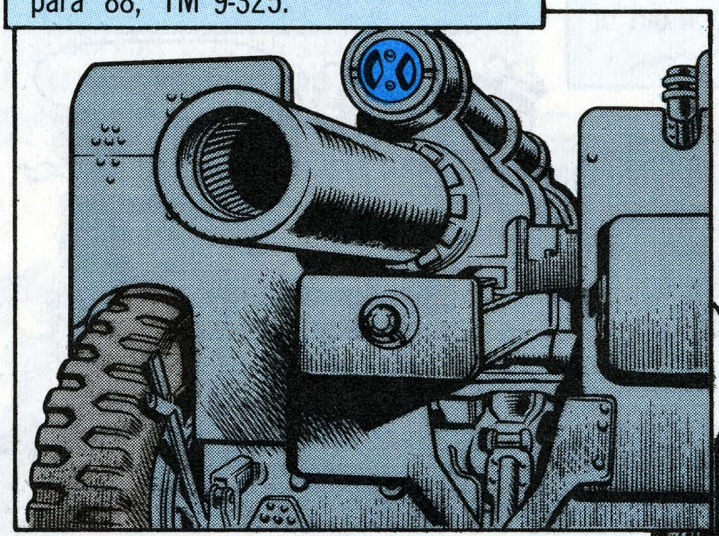
FILLER PLUG—Loose, threads stripped; plug's head rounded or chewed-up (replace beat-up plug. Use care and a ½-in box end wrench when working plug). Oil leakage (if leaks at filler valve, stuffing box or past the recoil piston at the respirator end, cause the oil index to recede within 24-hours, call support.



(To protect recoil oil from contamination always clean area around the filler plug when checking, adding or draining oil. Same goes for the liquid releasing tool and the oil filler gun . . . wipe 'em clean before using them.)

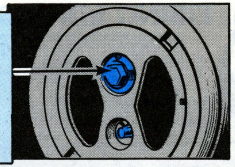
OIL INDEX— Dirty, **stuck, defective, leaking.** Oil reserve **low, excessive.** When recoil oil reserve is OK the oil index is flush with the face of the recuperator cylinder. When oil reserve is low the index recedes. However, the index also remains flush when the oil reserve is excessive . . . it can't clue you on that problem. So, be sure everyone knows — it takes extra care and know-how to re-establish correct oil reserve. And when removing the filling and drain plug, use a small screwdriver or similar item, and a clean cloth, to clean the oil cavity before adding oil to the recoil mechanism. For step-by-step scoop see para 88, TM 9-325.





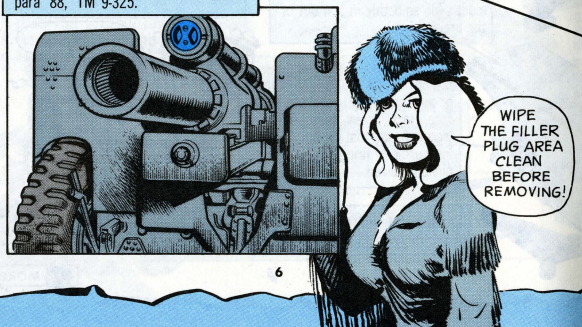
RECOIL MECHANISM

FILLER PLUG—Loose, threads stripped; plug's head rounded or chewed-up (replace beat-up plug. Use care and a ½-in box end wrench when working plug). Oil leakage (if leaks at filler valve, stuffing box or past the recoil piston at the respirator end, cause the oil index to recede within 24-hours, call support.



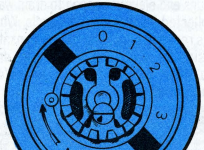
(To protect recoil oil from contamination always clean area around the filler plug when checking, adding or draining oil. Same goes for the liquid releasing tool and the oil filler gun . . . wipe 'em clean before using them.)

OIL INDEX—Dirty, **stuck, defective, leaking.** Oil reserve **low, excessive.** When recoil oil reserve is OK the oil index is flush with the face of the recuperator cylinder. When oil reserve is low the index recedes. However, the index also remains flush when the oil reserve is excessive . . . it can't clue you on that problem. So, be sure everyone knows — it takes extra care and know-how to re-establish correct oil reserve. And when removing the filling and drain plug, use a small screwdriver or similar item, and a clean cloth, to clean the oil cavity before adding oil to the recoil mechanism. For step-by-step scoop see para 88, TM 9-325.

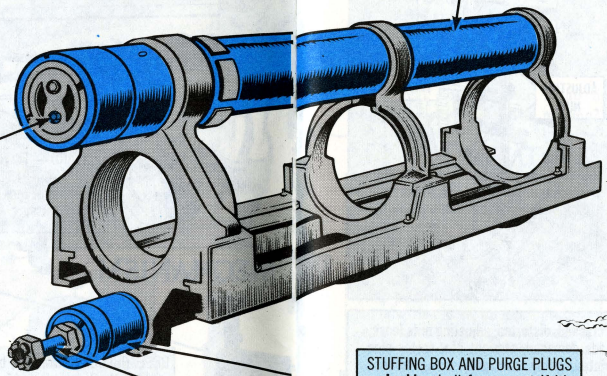


RECUPERATOR CYLINDER — Dented, **cracked.**

RECOIL CYLINDER — Respirator loose, doesn't adjust easily (must be closed) — set on "0", when weapon's not in use).



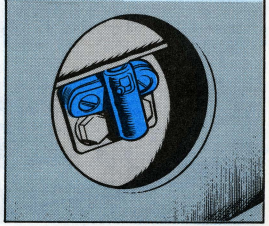
SLEIGH ASSEMBLY—**Cracked, loose.** Yokes and rails pitted, lube fittings **busted,** clogged, loose, **lost.**



STUFFING BOX AND PURGE PLUGS — **Leaking** (yell for support if it's excessive).

PISTON ROD — **Out of adjustment.** (Tighten outer locking nut so there's no end play. Then back it off 1 castellation. That lets the piston sit where it'll not bind or cause leakage at the stuffing box.) Outer locking nut **cracked, loose,** threads **stripped;** cotter pin **missing, broken.** (The outer locking nut and cotter pin must be on right and in good shape. If they're beat up or loose the howitzer may go out of control when it's fired. So, don't ever neglect 'em.)

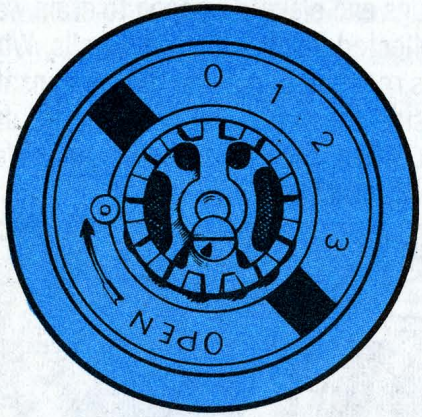
RECOIL MARKER — Stuck, worn; screws loose, plunger **damaged, won't mark.**



PS MORE

MECHANISM

RECOIL CYLINDER — Respirator loose, doesn't adjust easily (must be closed) — set on "0", when weapon's not in use).



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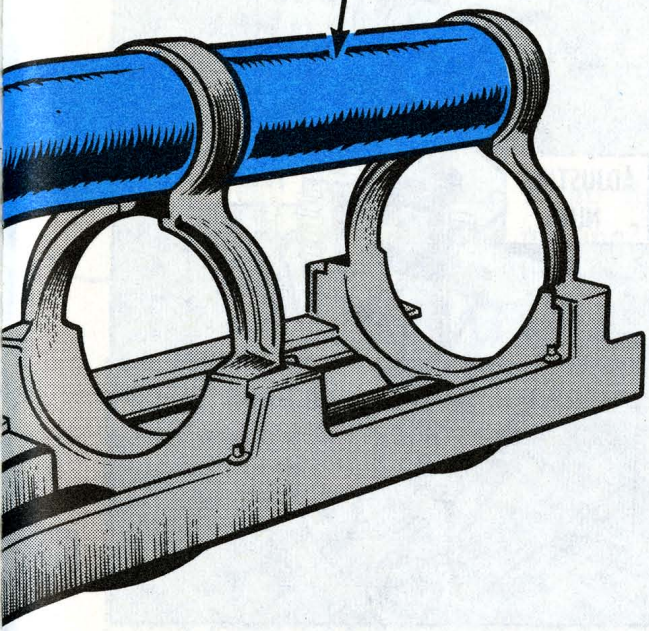

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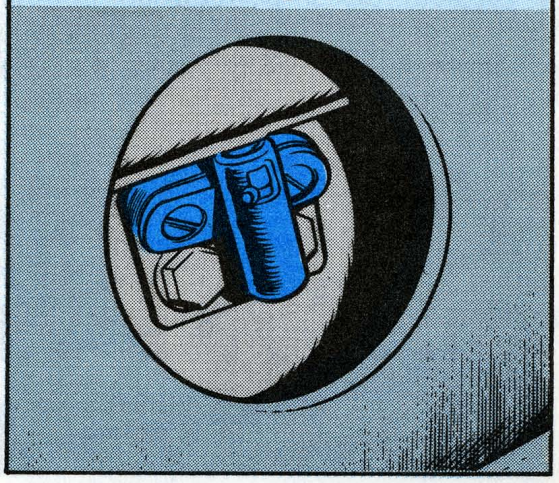

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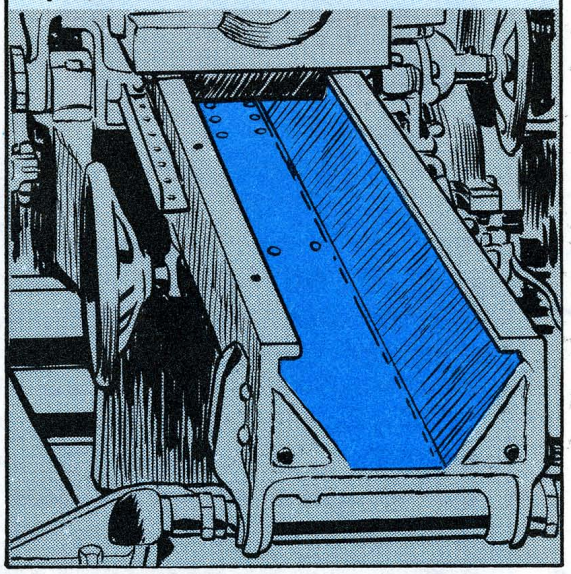
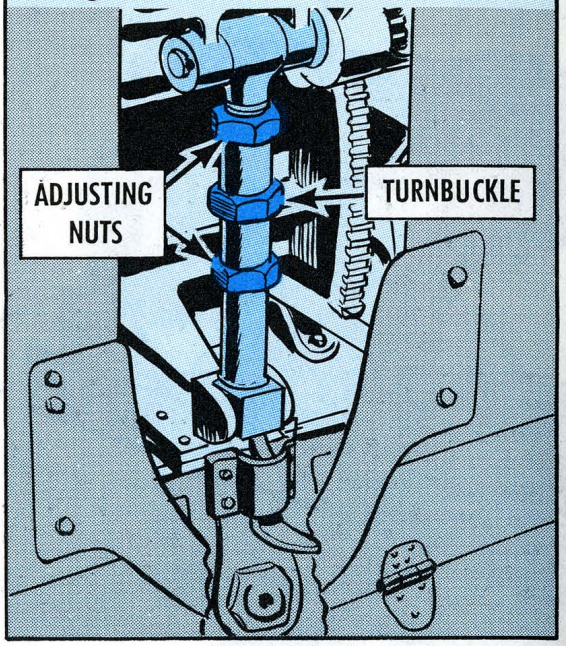
P.S. MORE

CRADLE/EQUILIBRATOR

CRADLE — Slides **burred, not greased, gouged,** rivets **loose.** Drain plugs loose, **lost,** stuck. (Monthly, or so, remove plugs and elevate weapon to drain water collected inside the cradle walls. Where it's real hot, of course, the condensation inside the walls will normally be dried up when the metal heats up.) Welds **split, cracked.**

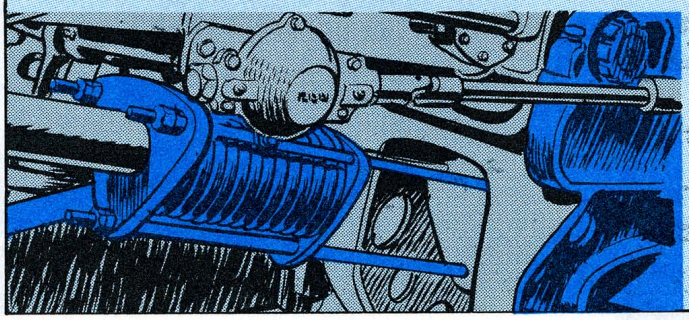


CRADLE STRUT LOCK — **Out of adjustment;** nuts, turnbuckle, brace loose, **cracked.** Cradle lock strut piece worn, scored, nuts **loose;** hinge pin worn, **broken, missing.** Upper and lower strut latch assemblies worn, **loose, damaged,** not greased.



EQUILIBRATOR — Fulcrum and spring seats **cracked,** distorted; adjusting nuts **loose, worn;** guide rods **painted,** not greased, threads damaged; straight pin, cotter pins **broken, lost.** Equilibrator spring and rod **painted,** grimy, **damaged;** spring rod not greased.

Equilibrator **out of adjustment.** (Adjusting nuts need loosening if howitzer is hard to depress, tightening if it's hard to elevate. Nuts must be adjusted evenly. When adjusted right it'll take approximately the same amount of force to depress the howitzer, as it will to raise it. For info and caution on adjusting equilibrator see para 96, TM 9-325.)



CRADLE TRUNNIONS — Trunnion pin nut **damaged;** washer, screw **loose, missing,** lube fitting plugged, **sheared, missing.**

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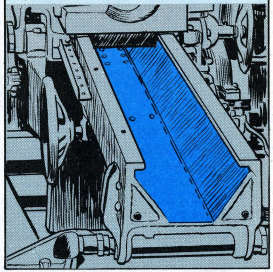

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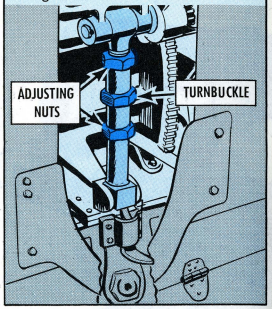

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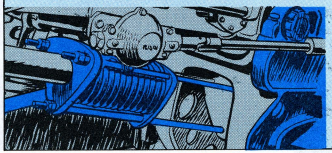


CRADLE TRUNNIONS — Trunnion pin nut **damaged;** washer, screw **loose, missing,** lube fitting plugged; **sheared, missing.**

UP/DOWN/SIDEWAYS

The elevating and traversing systems must work smooth-like throughout their entire range. So, never force the handwheels if the systems are jerky or there's binding. A balky handwheel may mean a system's just cruddy and needs cleaning and lubing. But, it can also mean something's caught — or . . . there's damage, in the elevating arcs, pinions, or elsewhere in the elevating system . . . or that the equilibrator is out of adjustment, blocked, damaged . . . or that there's damage in the traversing system.

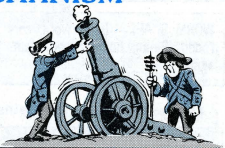
A tube that's hard to elevate or traverse can also mean excessive lube in the elevation worm wheel or the traversing screw swivel nut.

If free-play on the elevating or traversing handwheels is more'n one-sixth of a turn, tell support.

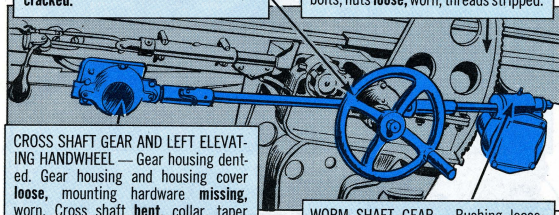
Pay real close attention to all the lube fittings in both systems. Are they plugged, sheared, smashed, missing?

ELEVATING MECHANISM

ELEVATING GEAR AND RIGHT ELEVATING HANDWHEEL — Gear case dented; gear-case and gear-case cover mounting hardware **loose, missing,** worn; collar loose, worn, taper pin **missing,** bushing loose. Shaft and flexible joints worn, bent, **painted.** Handwheel self-locking nut or washer **loose, damaged,** missing; collar, taper pin loose, worn, missing. Hand-wheel burred, handle sleeve **cracked.**



ELEVATING ARCS AND PINION GEARS — Not lubed, **corroded;** teeth **broken;** bolts, nuts **loose,** worn, threads stripped.



CROSS SHAFT GEAR AND LEFT ELEVATING HANDWHEEL — Gear housing dented. Gear housing and housing cover **loose,** mounting hardware **missing,** worn. Cross shaft **bent,** collar, taper pin, bushing loose, worn, **missing.** Handwheel **burred,** self-locking nut, washer **loose,** worn. Handwheel collar, bushing, taper pin loose, worn.

WORM SHAFT GEAR — Bushing loose; castle nut loose, worn, washer, cotter pin **missing,** worn. Worm-wheel housing cover **loose,** dented, cap-screws not safety-wired.

MORE

UP/DOWN/SIDEWAYS

The elevating and traversing systems must work smooth-like throughout their entire range. So, never force the handwheels if the systems are jerky or there's binding. A balky handwheel may mean a system's just cruddy and needs cleaning and lubing. But, it can also mean something's caught—or . . . there's damage, in the elevating arcs, pinions, or elsewhere in the elevating system . . . or that the equilibrator is out of adjustment, blocked, damaged . . . or that there's damage in the traversing system.

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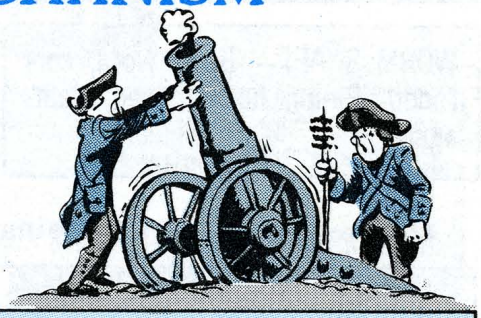

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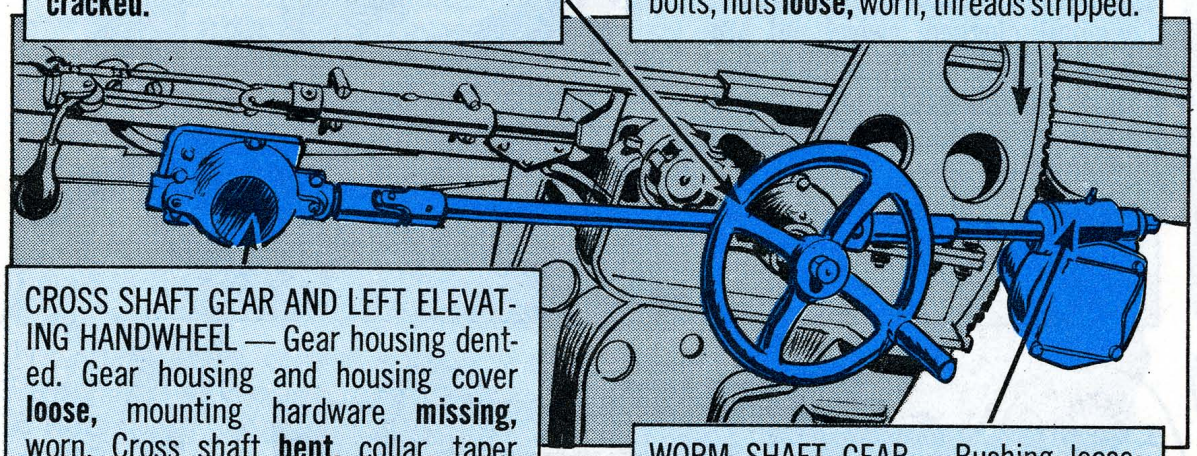


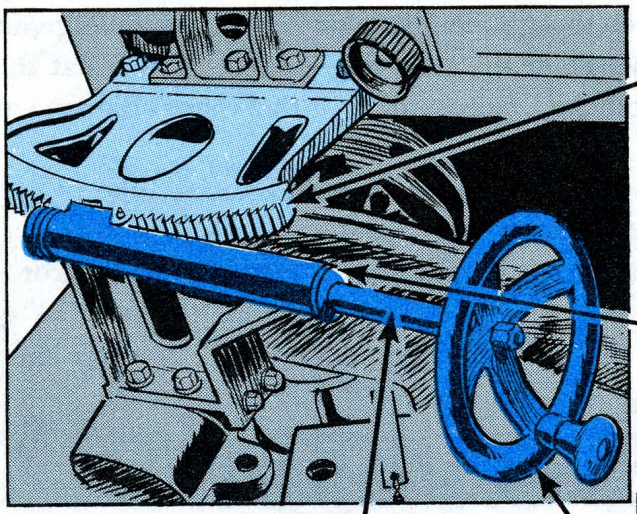
CROSS SHAFT GEAR AND LEFT ELEVATING HANDWHEEL — Gear housing dented. Gear housing and housing cover **loose,** mounting hardware **missing,** worn. Cross shaft **bent,** collar, taper pin, bushing loose, worn, **missing.** Handwheel **burred,** self-locking nut, washer **loose,** worn. Handwheel collar, bushing, taper pin loose, worn.

WORM SHAFT GEAR — Bushing loose; castle nut loose, worn, washer, cotter pin **missing,** worn. Worm-wheel housing cover **loose,** dented, cap-screws not safety-wired.

PS MORE

TRAVERSING MECHANISM

If your M101 or M101A1 still has the worm-and-rack type traversing mechanism check —



TRAVERSING RACK — **Cracked;** mounting bolts worn, **missing;** teeth **broken,** clogged, gummy, not greased. Traversing pointer loose, **broken,** screws burred; range scale not legible.

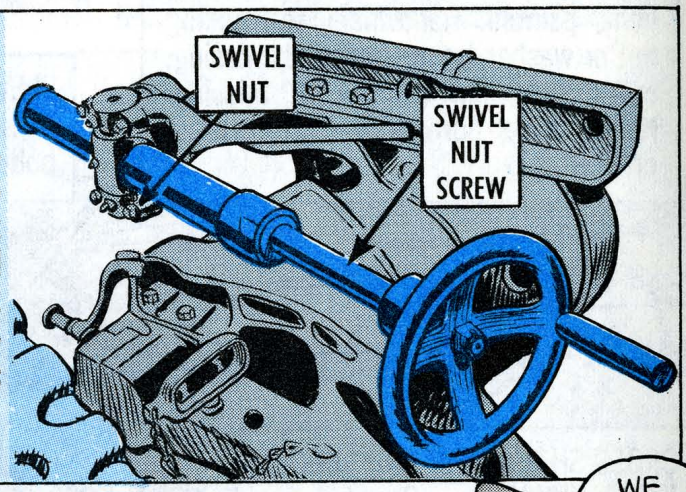
SHAFT BRACKET — **Cracked;** nuts, screws, washers loose, missing, straight pin loose, **lost, damaged.**

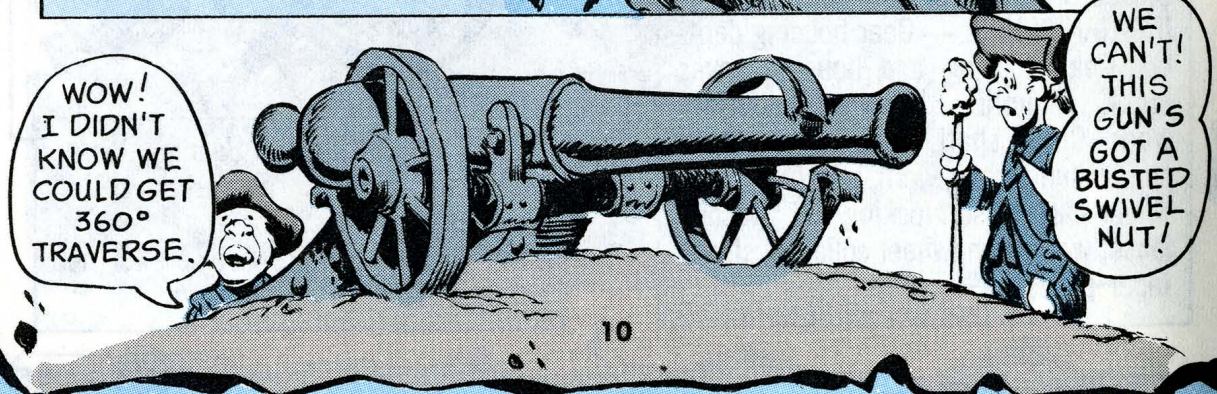
WORM SHAFT — Bent, worn, corroded. Pinion not greased, **damaged.**

TRAVERSING HANDWHEEL — Burred; handle **cracked,** worn, locking nut, washer, collar, bushing worn, **loose.**

On the screw-type traversing mechanism —

SWIVEL NUT AND SWIVEL NUT SCREW — Swivel nut screw **bent, painted,** not greased, cover breathing-hole clogged; swivel nut **broken;** swivel nut caps and pivot loose, **cracked;** swivel nut and handwheel brackets **cracked, loose.** Traversing handwheel burred, self-locking nut, washer **loose,** burred; handle **loose, burred.**





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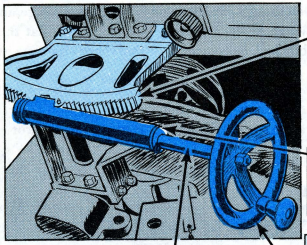


TRAVERSING RACK — **Cracked;** mounting bolts worn, **missing;** teeth **broken,** clogged, gummy, not greased. Traversing pointer loose, **broken,** screws burred; range scale not legible.

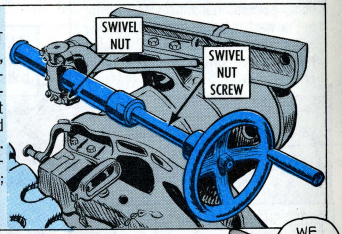
SHAFT BRACKET — **Cracked;** nuts, screws, washers loose, missing, straight pin loose, **lost, damaged.**

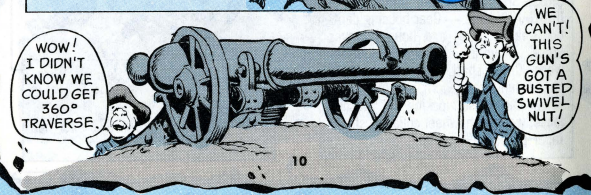
WORM SHAFT — Bent, worn, corroded. Pinion not greased, **damaged.**

TRAVERSING HANDWHEEL — Burred; handle **cracked,** worn, locking nut, washer, collar, bushing worn, **loose.**

On the screw-type traversing mechanism—

SWIVEL NUT AND SWIVEL NUT SCREW — Swivel nut screw **bent, painted,** not greased, cover breathing-hole clogged; swivel nut **broken;** swivel nut caps and pivot loose, **cracked;** swivel nut and handwheel brackets **cracked, loose.** Traversing handwheel burred, self-locking nut, washer **loose,** burred; handle **loose, burred.**



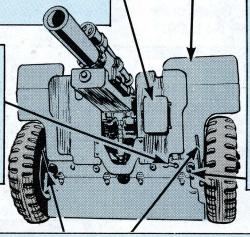


CARRIAGE/WHEELS

PANORAMIC TELESCOPE CASE — Dented. Rubber seal split, painted, loose, doesn't seal right; door sprung, hinges loose. Mounting brackets loose; locking latch, chain, snap bolt, lock **missing, busted.** Inside brackets, clamps, holders loose, missing, shot.

MAIN AND AUXILIARY SHIELDS—Loose, hinges loose, worn, bent. Auxiliary shield brackets, latches, hinges loose, worn, bent, **parts missing.**

AXLE LOCK ASSEMBLIES—Handle **missing, broken,** won't **pivot** or **lock;** lube fitting plugged, **missing, sheared;** bearing surface scored; spring **missing,** worn.



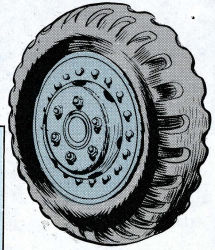
BOTTOM SHIELD LATCH ASSEMBLIES—Bracket cracked, twisted; latch handle **broken,** plunger **missing,** split, burred; spring **missing,** weak; cotter pin **sheared, missing;** hinges **broken,** loose, U-fastener **bent, sheared.**

HANDBRAKES — **Out of adjustment;** lever bent, worn, trip handle **doesn't release or hold;** ratchet **stripped;** spring weak, **missing;** cotter pins **missing,** worn, castel nut stripped, **missing.**

Jack up wheels to check handbrake adjustment. Brakes need adjusting when it takes over 7 notches on the ratchet to stop the jacked-up wheel. To put it another way, adjustment is OK, if the brakes grab when you push the lever about half-way down on the rack. See paras 104, 109-110, TM 9-325 for info on care and adjustment of handbrakes.

WHEELS — **Loose;** stud nuts **missing,** worn, **loose;** wheel bearings out of adjustment, damaged; too much, not enough or contaminated grease; grease seals installed wrong (the lip on seal must face toward bearings). Brake bands worn, greasy.

Wheel bearing adjustment and packing SOP is in paras 101 and 103, TM 9-325.



TIRES — **Cut, cracked, worn;** valve stem pinched, squashed; valve cap missing. Stones, limbs, nails, glass, etc., embedded in rubber or caught in tread. Air pressure low (40 PSI under normal conditions, 32 PSI for traveling at low speeds over soft ground, 48 PSI for higher speed over hard surface).

PS MORE

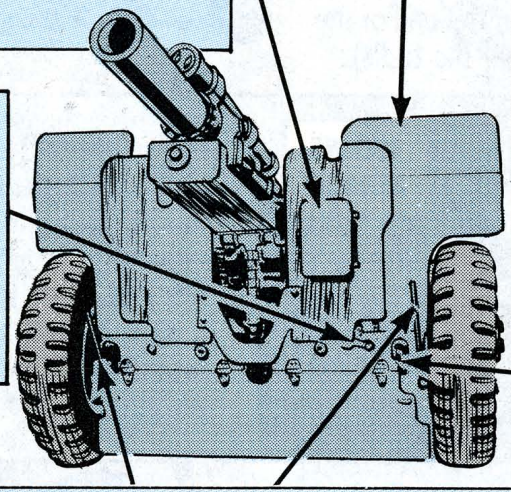
CARRIAGE/WHEELS

PANORAMIC TELESCOPE CASE — Dented. Rubber seal split, painted, loose, doesn't seal right; door sprung, hinges loose. Mounting brackets loose; locking latch, chain, snap bolt, lock **missing, busted.** Inside brackets, clamps, holders loose, missing, shot.

MAIN AND AUXILIARY SHIELDS—Loose, hinges loose, worn, bent. Auxiliary shield brackets, latches, hinges loose, worn, bent, **parts missing.**

BOTTOM SHIELD LATCH ASSEMBLIES—Bracket cracked, twisted; latch handle **broken,** plunger **missing,** split, burred; spring **missing,** weak; cotter pin **sheared, missing;** hinges **broken,** loose, U-fastener **bent, sheared.**

AXLE LOCK ASSEMBLIES—Handle **missing, broken,** won't **pivot** or **lock;** lube fitting plugged, **missing, sheared;** bearing surface scored; spring **missing,** worn.

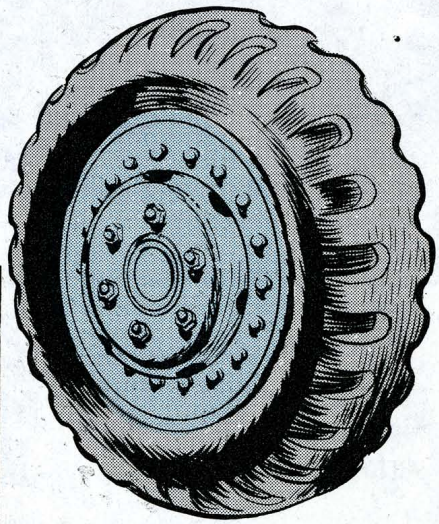


HANDBRAKES — **Out of adjustment;** lever bent, worn, trip handle **doesn't release or hold;** ratchet **stripped;** spring weak, **missing;** cotter pins **missing,** worn, castel nut stripped, **missing.**

Jack up wheels to check handbrake adjustment. Brakes need adjusting when it takes over 7 notches on the ratchet to stop the jacked-up wheel. To put it another way, adjustment is OK, if the brakes grab when you push the lever about half-way down on the rack. See paras 104, 109-110, TM 9-325 for info on care and adjustment of handbrakes.

WHEELS — **Loose;** stud nuts **missing,** worn, **loose;** wheel bearings out of adjustment, damaged; too much, not enough or contaminated grease; grease seals installed wrong (the lip on seal must face toward bearings). Brake bands worn, greasy.

Wheel bearing adjustment and packing SOP is in paras 101 and 103, TM 9-325.

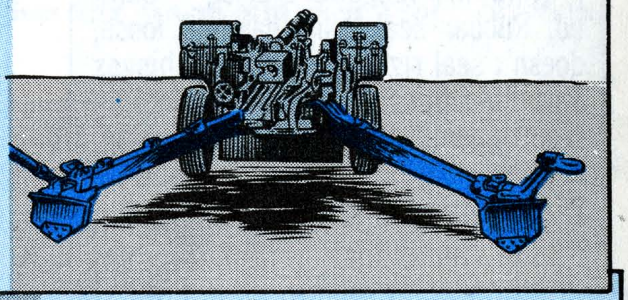


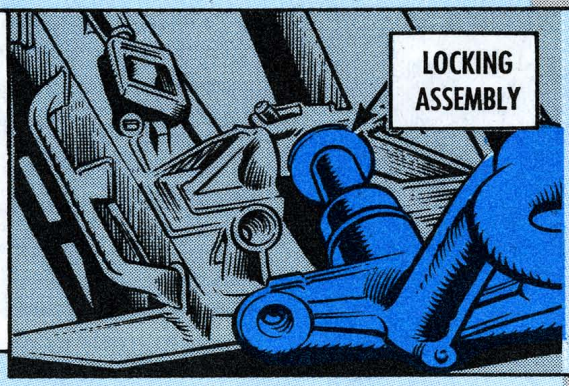
TIRES — **Cut, cracked, worn;** valve stem pinched, squashed; valve cap missing. Stones, limbs, nails, glass, etc., embedded in rubber or caught in tread. Air pressure low (40 PSI under normal conditions, 32 PSI for traveling at low speeds over soft ground, 48 PSI for higher speed over hard surface).

P.S MORE

TRAILS/LOCKING ASSEMBLIES

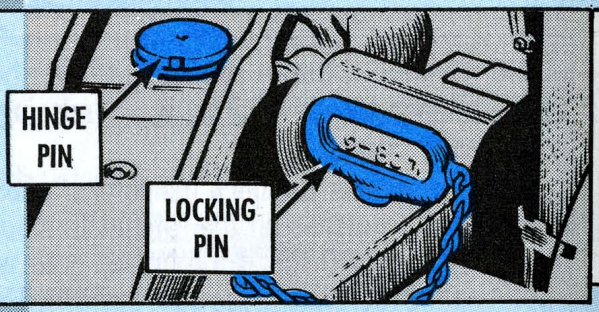
TRAILS — **Hard to spread and close.** Handrails bent, loose. Spades twisted, battered, out of line. Handspike **missing,** burred, bent. Drain plugs missing, frozen (tend to trail drain plugs like you do the cradle drain plugs. Some trail drain plugs are located at the end of the trails . . . others are under the trails).

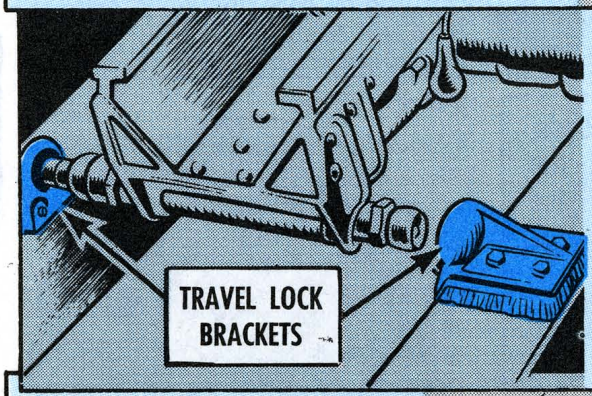




DRAWBAR AND LOCKING LATCH ASSEMBLY — Lunette **cracked, loose,** slotted nuts cotter pins loose, worn. Drawbar **twisted,** bushing worn; locking hole **cracked.** Trail locking loop and handle assembly wobbly, **busted,** not greased; latch plunger loose, stuck, **busted.** Cotter pins, nuts, pins **lost,** worn.

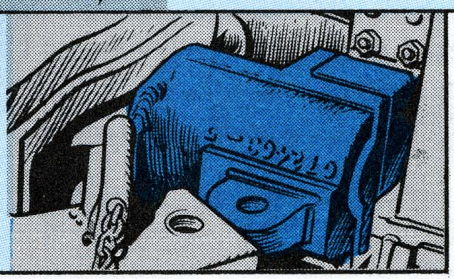
TRAIL LOCKING PINS AND HINGE PINS — Locking pin **busted;** chain **missing, broken,** not anchored to trail bumper or pin. Hinge pin worn, loose.





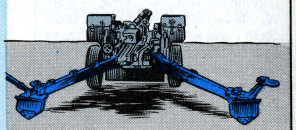
CRADLE TRAVELING LOCK AND BRACKETS — Brackets **loose, cracked, not alined** (Never force-lock the trails. For minor adjustment of locking brackets loosen bracket capscrews, adjust brackets as needed, and then re-tighten capscrews). Capscrews worn, **missing.** Lock shaft and shaft piece burred, bent, **cracked,** pin **missing.**

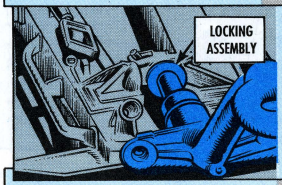
GIB BEARINGS—Not greased, painted, scratched. (Lift trails high for close look at bearing surfaces.)



TRAILS/LOCKING ASSEMBLIES

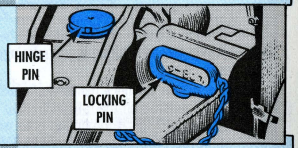
TRAILS — **Hard to spread and close.** Handrails bent, loose. Spades twisted, battered, out of line. Handspike **missing,** burred, bent. Drain plugs missing, frozen (tend to trail drain plugs like you do the cradle drain plugs. Some trail drain plugs are located at the end of the trails . . . others are under the trails).

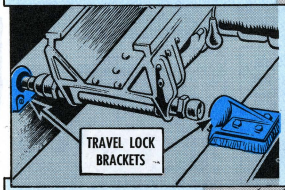




DRAWBAR AND LOCKING LATCH ASSEMBLY — Lunette **cracked, loose,** slotted nuts cotter pins loose, worm. Drawbar **twisted,** bushing worn; locking hole **cracked.** Trail locking loop and handle assembly wobbly, **busted,** not greased; latch plunger loose, stuck, **busted.** Cotter pins, nuts, pins **lost,** worn.

TRAIL LOCKING PINS AND HINGE PINS — Locking pin **busted;** chain **missing, broken,** not anchored to trail bumper or pin. Hinge pin worn, loose.





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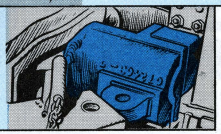
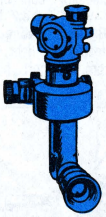
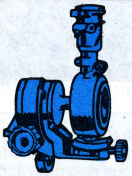
GIB BEARINGS—Not greased, painted, scratched. (Lift trails high for close look at bearing surfaces.)



FIRE CONTROL/SIGHTING

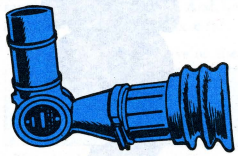
M12A7H/S PANORAMIC TELESCOPE — Lens **scratched,** smeared, **cracked, fungus infected.** Clamp loose, **cracked.** Elevation and azimuth micrometer knobs **loose, bind, cracked, backlash** when rotation is reversed. Indexes, scales **not legible,** loose. Eyeshield split, loose, deformed, dirty. Ballistic reticle **doesn't illuminate** when instrument light is on. Throwout level **broken, stuck** (it must release gear when pressed and return the worm into mesh when released).



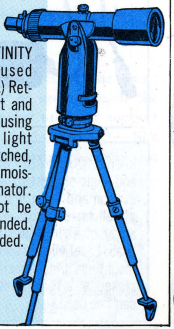


M21A1 TELESCOPE MOUNT — Mounting screws loose, missing. Leveling knobs **cracked,** bind, **backlash.** Wing knob **broken,** loose, spring **weak** (won't snap instantly into locked position). Socket **bent,** burred. Level vials **cracked, loose** in mountings. Tangent screws burred, **stuck.** Mounting surfaces dirty, **burred, painted.**

M16A1D ELBOW TELESCOPE — Optics smeared, **scratched, cracked, fungus infected.** Eyeshield split, dirty, deformed. Illuminating windows **broken,** loose; **adaptor damaged.** Ballistic reticle **doesn't illuminate** when instrument light is on.



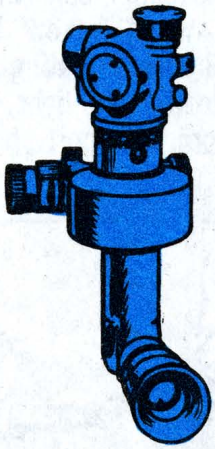
COLLIMATOR, INFINITY AIMING, M1 — (used only with M101A1.) Reticle does not light and is not adjustable using remote control light source. Lens scratched, fungus present, moisture inside of collimator. Tripod legs cannot be clamped or extended. Battery case corroded.

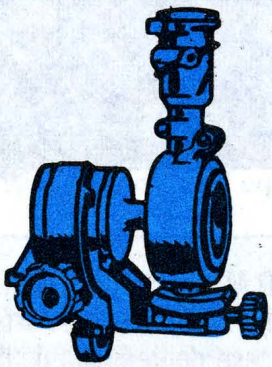


PS MORE

FIRE CONTROL/SIGHTING

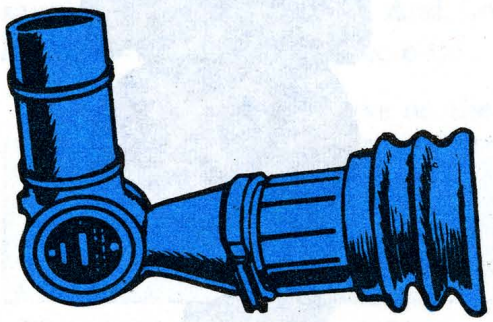
M12A7H/S PANORAMIC TELESCOPE — Lens **scratched,** smeared, **cracked, fungus infected.** Clamp loose, **cracked.** Elevation and azimuth micrometer knobs **loose, bind, cracked, backlash** when rotation is reversed. Indexes, scales **not legible,** loose. Eyeshield split, loose, deformed, dirty. Ballistic reticle **doesn't illuminate** when instrument light is on. Throwout level **broken, stuck** (it must release gear when pressed and return the worm into mesh when released).



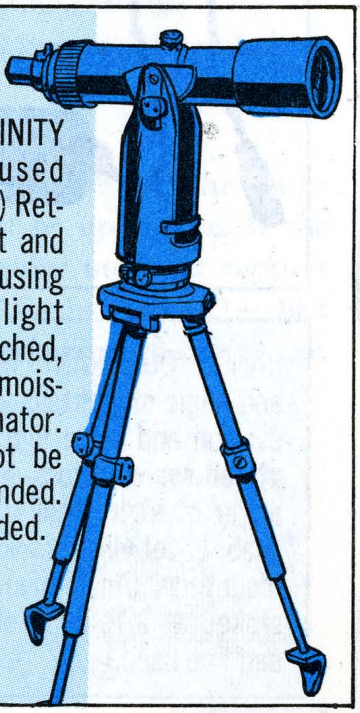


M21A1 TELESCOPE MOUNT — Mounting screws loose, missing. Leveling knobs **cracked,** bind, **backlash.** Wing knob **broken,** loose, spring **weak** (won't snap instantly into locked position). Socket **bent,** burred. Level vials **cracked, loose** in mountings. Tangent screws burred, **stuck.** Mounting surfaces dirty, **burred, painted.**

M16A1D ELBOW TELESCOPE — Optics smeared, **scratched, cracked, fungus infected.** Eyeshield split, dirty, deformed. Illuminating windows **broken,** loose; **adaptor damaged.** Ballistic reticle **doesn't illuminate** when instrument light is on.

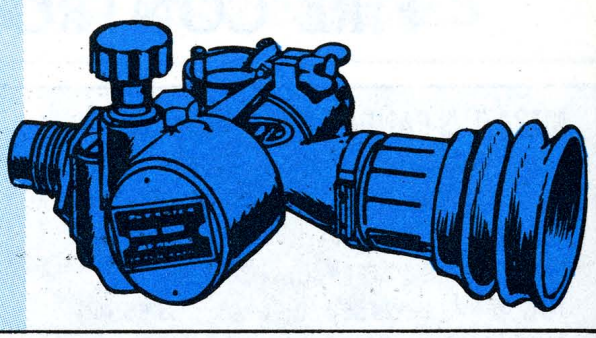


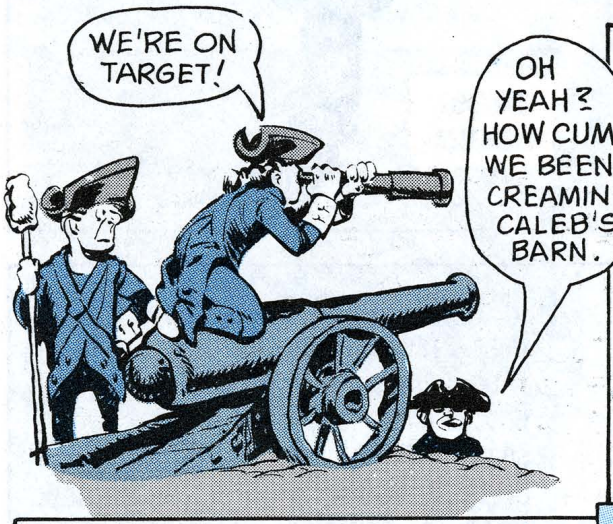
COLLIMATOR, INFINITY AIMING, M1 — (used only with M101A1.) Reticle does not light and is not adjustable using remote control light source. Lens scratched, fungus present, moisture inside of collimator. Tripod legs cannot be clamped or extended. Battery case corroded.

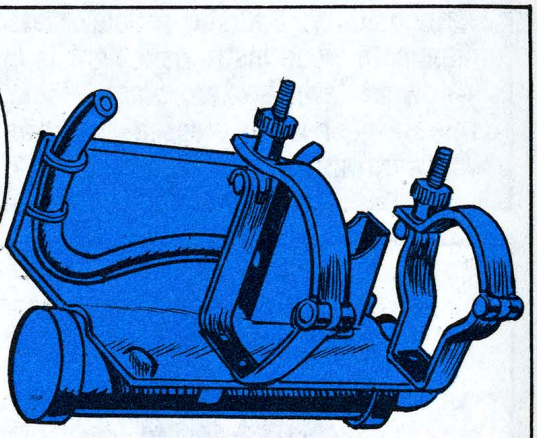


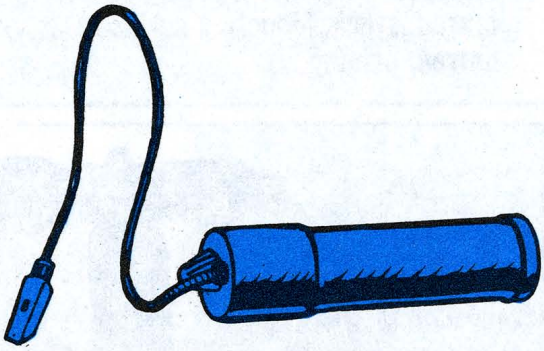
PS MORE

M23 TELESCOPE MOUNT — Telescope clamp **cracked,** wing nut **broken,** eyebolt loose, worn. Clamping bolt burred, **loose.** Elevation worm, screw **loose;** burred, binds. Bracket rotating knob **cracked, binds.** Instrument light clamp bent, rusty, worn. Support **burred, nicked.**



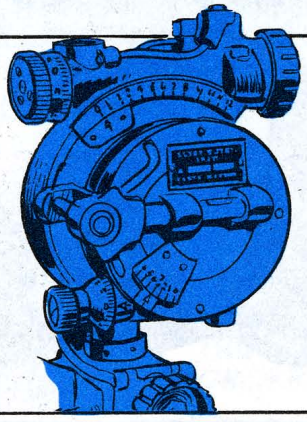




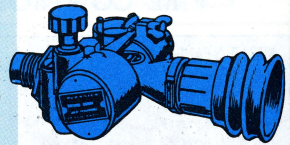


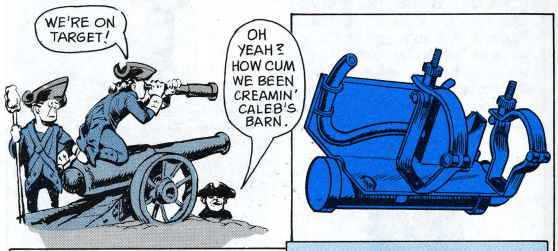
M19 AND M36 INSTRUMENT LIGHTS — **Broken, burned out** bulbs. Parts **missing, broken;** case dented; cap dented, **missing.** Clamps, switch and illuminating tube on M19 **damaged.** M36 rheostat knob **broken, won't dim or brighten lamps; wire frayed, cut,** lamp bracket cracked. Batteries **missing, leaky, dead,** contacts corroded (pull batteries out when weapon's not in use).

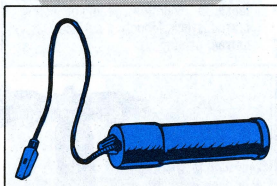
RANGE QUADRANT M4A1 — Elevation and angle-of-sight scales **not legible.** Elevation and scale light **doesn't illuminate all scales.** Cross-level elevation and angle of sight **knobs cracked,** bind or grab. Level vials **cracked, loose** in their mountings. (Angle of sight scale must be staked at a reading of 300 mils, so it can't be used.)



M23 TELESCOPE MOUNT — Telescope clamp **cracked,** wing nut **broken,** eyebolt loose, worn. Clamping bolt burred, **loose.** Elevation worm, screw **loose;** burred, binds. Bracket rotating knob **cracked, binds.** Instrument light clamp bent, rusty, worn. Support **burred, nicked.**







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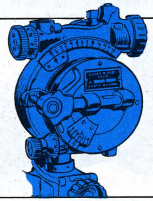
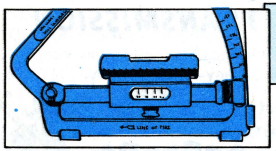




M1/M1A1 GUNNER'S QUADRANT — Level vials **cracked, loose;** pads nicked, burred; scales **not legible.**

AIMING POSTS — Bent, cracked, markings **scratched,** worn.

COVERS

GUN COVER — Ripped, moldy, wet, oily, not weather proofed; straps, worn, missing, fasteners broken.

MUZZLE COVER — Missing, torn, moldy; straps, buckle missing, busted.

BIIL

Check the howitzer's BIIL (Basic Issue Items List). The items are called out in App IV, Ch 5, TM 9-325. Replace missing or damaged items. Same goes for the weapon's special tools and equipment. They're listed in the TM's Table I, Ch 5.

ID PLATES

Check all name plates, caution plates, instruction plates, serial number plates, etc., on the weapon and on fire control and sighting equipment. Keep 'em clean and coat metal plates carefully with oil to protect them from rusting.

NOTE — The carriage serial number is used as the end item serial number.

FORMS/PUBS

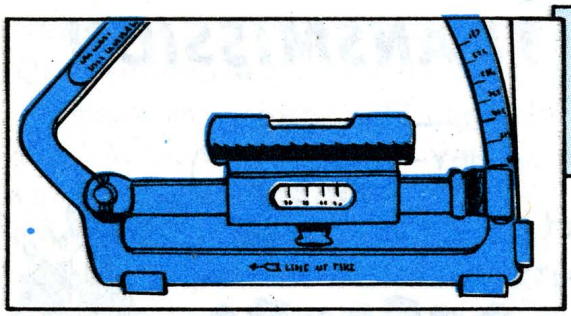
The forms you need on the weapon are listed in TM 38-750. All the forms must be on hand and in good order, and all entries must be up-to-date. Is the borescoping info current? When the weapon's not in regular use your support outfit must borescope the tube every 90 days, or as called for by your CO — like it says in TM 9-1000-202-35. And, how about your howitzer's lubing? Is it in line with LO 9-1015-203-10 (Dec 64)?

The pubs you should have on the weapon are:

TM 9-325 (May 48), Ch 1, 2, 5, 6, 7 and 8.	TM 9-1015-203-20P (Jul 68).
LO 9-1015-203-10 (Dec 64).	TM 9-1015-203-ESC (May 69).
	FM 6-75 (Feb 63), Ch 1 and 2.

There's also a real good film on the weapon. It's TF 9-2050.

PS END



M1/M1A1 GUNNER'S QUADRANT — Level vials **cracked, loose;** pads nicked, burred; scales **not legible.**

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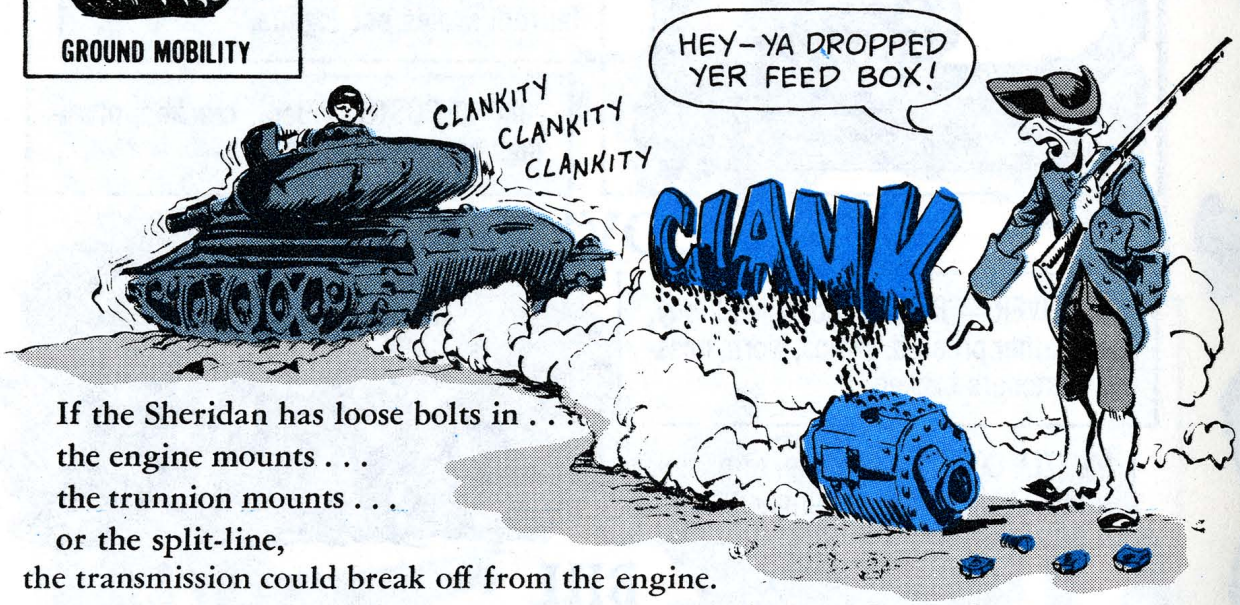
PS END

M551 TRANSMISSION

GROUND MOBILITY

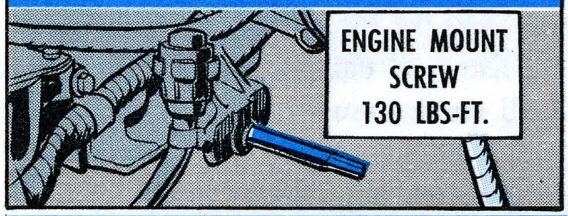


If the Sheridan has loose bolts in . . .
the engine mounts . . .
the trunnion mounts . . .
or the split-line,
the transmission could break off from the engine.

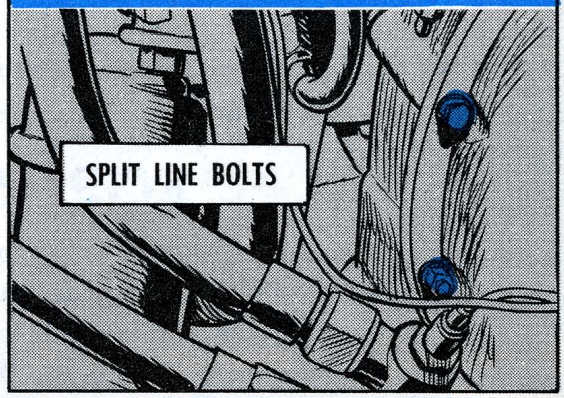
If that happened your converter housing would bust, and your direct support would have to get another one and put it on for you.

To keep that from happening here's what you can do . . .

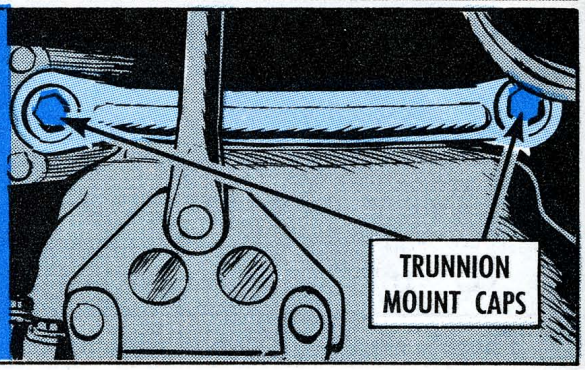
Take off the engine mount access covers and check the torque on the engine mount screws. If they're **loose,** pull the pack because there's a big chance something else is wrong. If the torque is at 130 lbs-ft like your TM calls for, go on to 2. If it's under 130 but not really loose, bring it up to 130 and then go on to 2.



Check as many of the 12 split-line bolts as you can see or feel. If even **one** of 'em is missing or **loose,** pull the power pack.



Test the trunnion mount caps with a torque wrench. If they're quite **loose,** pull the pack. If they're below the 85-90 lbs-ft torque they're supposed to have, but not really loose, torque to 85-90 and go on to 3. If they're already at 85-90 go on to 3.



Even if your M551 passes all the tests, check the split-line bolts every quarterly (Q) service and at any time the power pack is out for any reason.

Replace any missing split-line bolts with grade 8 bolts, listed on page 55 of your TM 9-2350-230-25P/1 (Jun 66) as FSN 5305-725-2317. The washers to go with 'em are FSN 5310-877-5972.

After you get all the split-line bolts in place and torqued to 35 lbs-ft, put the power pack back and make sure you get the right torque (130 lbs-ft) on the engine mount screws and (85-90 lbs-ft) on the trunnion mount caps.

(Note: For now you have to go through this whole drill, but when the new design Ny-Loc mounting bolts and nuts are issued it shouldn't be necessary. They ought to be in the supply system soon.)

MORE M551 TIPS

TIP 1 The speedometer/odometer cable on your M551 Sheridan won't work right if the transmission adapter key gets lost.

That's why it says in Step 8 on page 9-7 of Ch 4 (Apr 69) to TM 9-2350-230-12 (Jun 66) to tape the adapter key to the speedometer cable.

The tape is just to keep it secure until you get your maintenance on the cable done, after which you put the key back into the adapter.

But what's happening is people forget to put the key back and that's just as bad as losing it.

So, if you're having trouble with the cable, see if the key has been left out. If it's missing and not taped to the cable, get a new one (FSN 5315-597-5387).

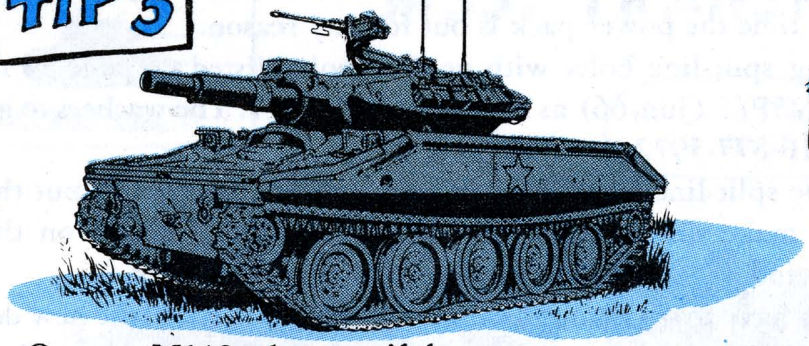
INSULATING COMPOUND

TIP 2 If you've got no protective covering over the rheostat terminals in any of your 4 dome lights, it can be real shocking news if you have a metal object in your hand when you accidentally touch one of the rheostats.

To cut down on the high jumpin' and screamin', cover the terminals, wires and rear of switch area with vulcanizing compound. You get your insulation from the cushioning effect so any type of vulcanizing compound is OK just so you're not stingy and use plenty of it. Silicone rubber compound FSN 8040-867-4358 will do the job. Item 19, TB 750-981-4 (Oct 69) has the scoop.

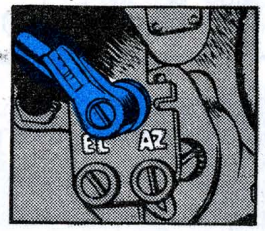
PS MORE

TIP 3



On your M119 telescope, if the porro prism of the M149 telescope mount does not release when the solenoid is activated, call for your turret mechanic.

What you NEVER, NEVER do is try to get the prism out of the line of sight by pressing hard on the aline lever. This can damage the shafts on your telescope mount. So find a turret mechanic and let him do his thing. Releasing a stuck prism is not a job for the Do-It-Yourself handyman.



DON'T FORCE ALINE LEVER

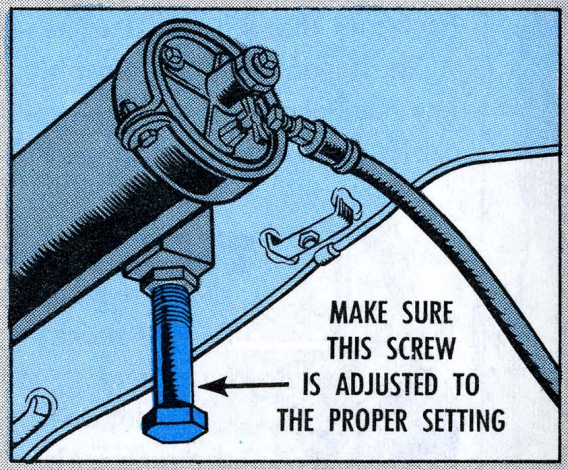
M48A2 / M48A3 TANK TOPICS

It's an Oldy but a Goody . . . the info on adjusting the maximum depression stop screw so the gun breech clears the rangefinder by 1/4 inch when the gun is fired at maximum depression.

You find it in Ch 14 (Sep 66) to TM 9-7022 (Mar 58) for the M48A2 and M48A2C tanks and on page 2-579 of TM 9-2350-224-20 (Jan 66) for the M48A3.

So make sure your mechanic has got the word and has adjusted the maximum depression stop screw and entered the fact on the equipment log book.

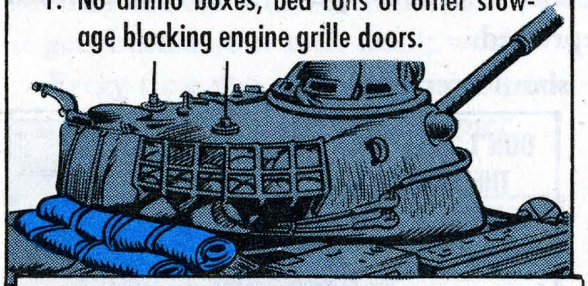
One other thing to watch . . . don't leave anything on top of the rangefinder such as a clip of ammo (or whatever). At maximum depression it would be crushed between the turret roof and the rangefinder and you can easy figure which would break first, the roof or the rangefinder.



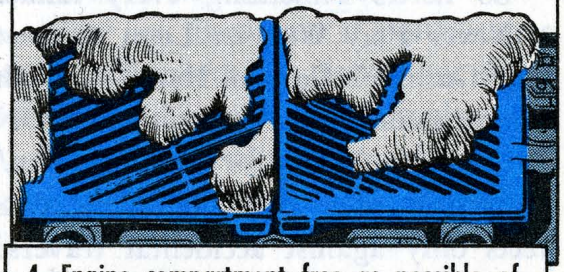
TANK COOL SCHOOL

It's not cool to let your tank get overheated.
So, give your tank the cools with these 5 inspection rules:

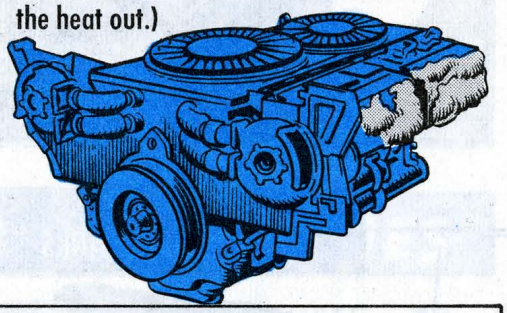
1. No ammo boxes, bed rolls or other stowage blocking engine grille doors.



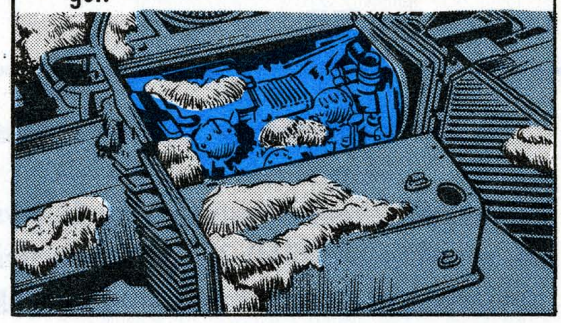
2. Exhaust doors not clogged with twigs, leaves or mud. Not mashed shut. (You can use your tanker's bar to pry the fins open.)



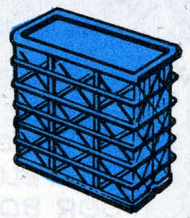
3. Oil cooler radiators clean, not clogged with dust or mud. (They need to be clean to let the heat out.)

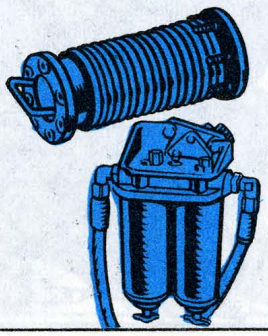


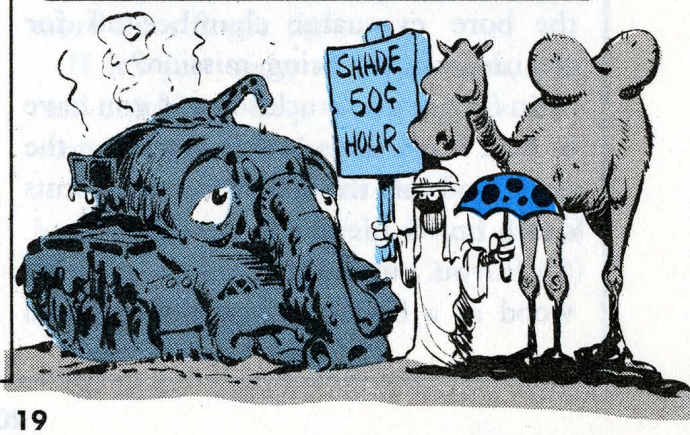
4. Engine compartment free as possible of mud, leaves, twigs and such junk. Clean out the engine well whenever the power pack is pulled and any other chance you get.



5. Filters not clogged. The engine and transmission can run hotter than they should if air cleaner, oil or fuel line filters get clogged. So service these filters like it says in TM 9-2350-224-20 (Jan 66) with its 6 changes.







ALL TANKERS . . .

DANGER! ATTENTION! WARNING!

Your tank telescope can clobber you if you don't watch out!

A couple of tankers have been bashed by the telescope as it moved upward when the main gun was accidentally depressed.

So here's something every tanker should remember:

Never Play With or Lean Against The Gunner's Control Handles. With master switch and the turret power ON handles are "live" for gun elevation/depression. The magnetic brake protects only against accidental traverse but not against elevation/depression.

An accident like this could happen in any M60/M60A1/M48-family tank or in the M728 CEV. — So don't be careLESS, be careFUL.

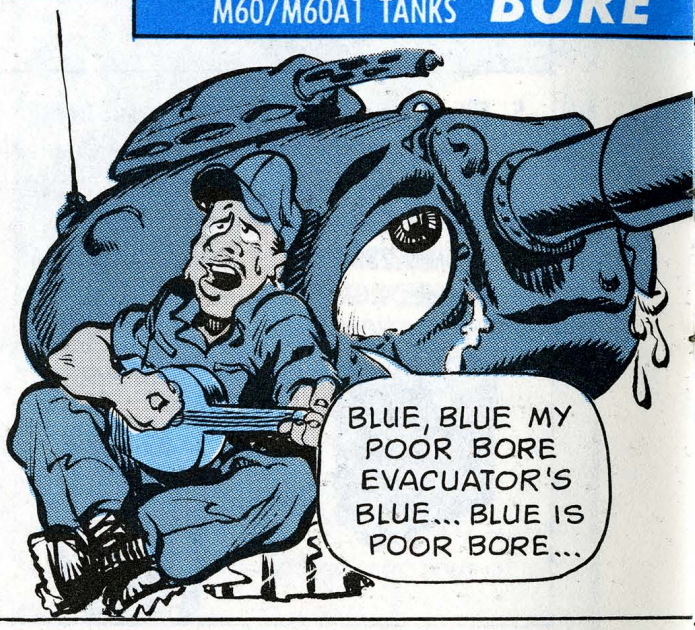
M60/M60A1 TANKS BORE

So you're singing the bore evacuator blues?

You do everything the way it says in your TM 9-2350-215-10 (Feb 65) but you still have a hard time getting the bore evacuator chamber off for cleaning after a firing mission?

In fact, it gets stuck so hard you have to beat it off. This makes marks on the back end of the evacuator and cuts down on its life span.

(If you **gotta** hit it, use a piece of wood as a buffer so you don't pound



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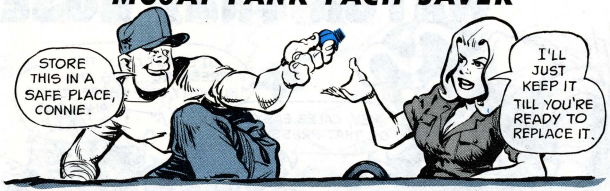
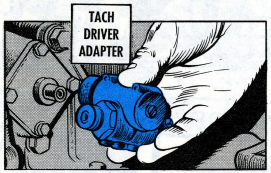
M60A1 TANK TACH SAVER



The tachometer drive adapter in your M60A1 tank is a useful little rascal. If it gets busted your tach won't work.

Every time you pull the power pack you risk breaking the tach adapter.



You can easily protect it, though, by adding one little step to the instructions under Photo 19 on page 2-189 of your TM 9-2350-215-20 (Feb 65).

After you disconnect the tachometer shaft, disconnect the tachometer drive adapter and store it in a safe place.

When you pull/replace the power pack you won't break the tach drive adapter because it won't be there to get broken.

After you have the power pack safely back in the vehicle you can screw the tach drive adapter back in place.

M60/M60A1 TANKS

BORE EVACUATOR BLUES

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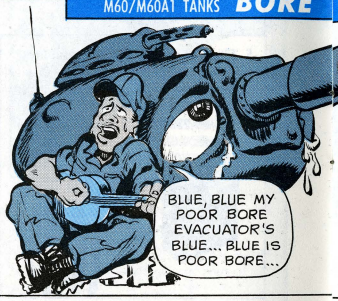


directly on the metal).

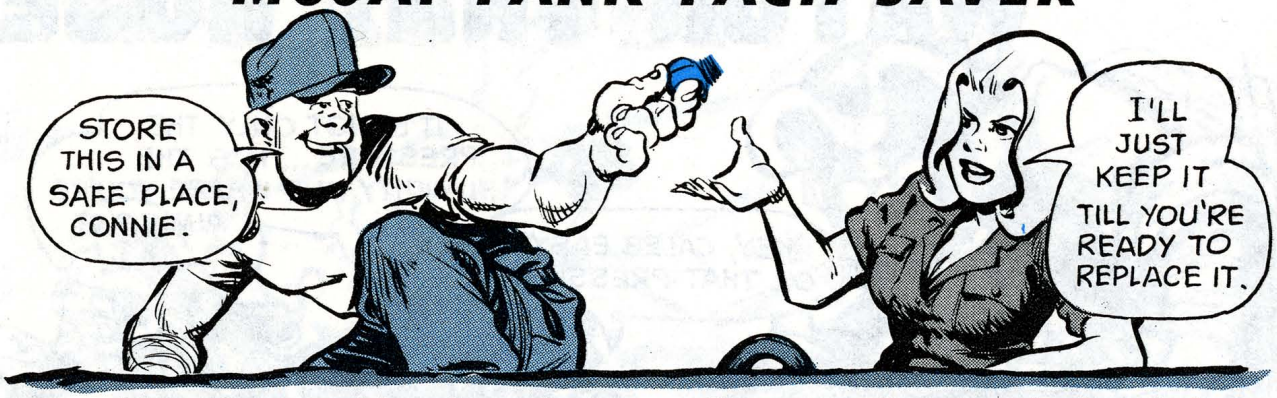
The Solution? Prevention.

Just use a little less beef on the spanner wrench when you tighten the retaining ring. Just make it snug — barely more than finger tight.

If it's just snug to begin with, you can unlock it easy with the spanner wrench . . . even after firing.

'Course you want to make sure the bore evacuator is cleaned and lubed like your LO 9-2350-215-12 (Jun 69) says in Note 9.

M60A1 TANK TACH SAVER



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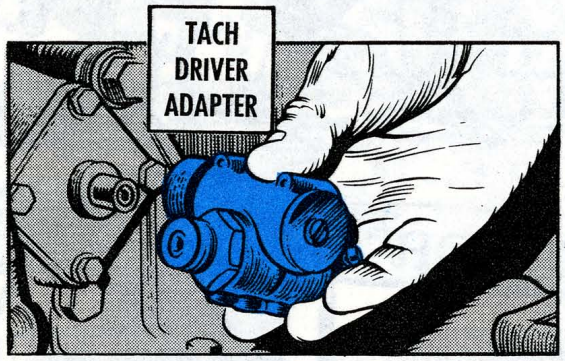

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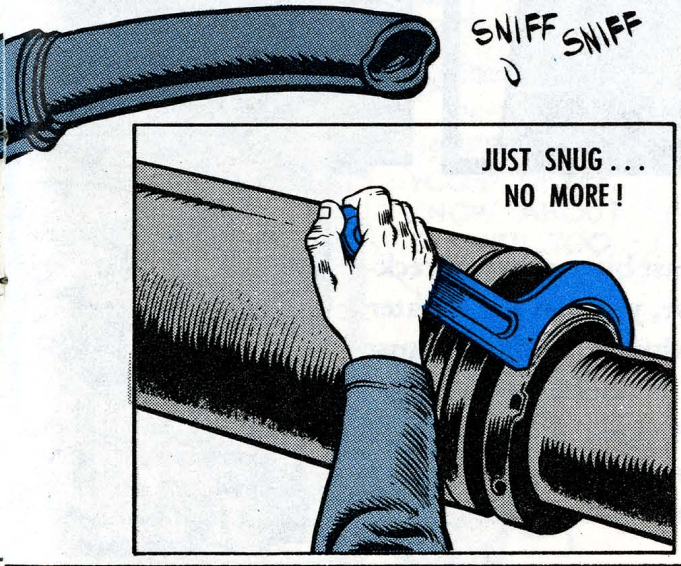

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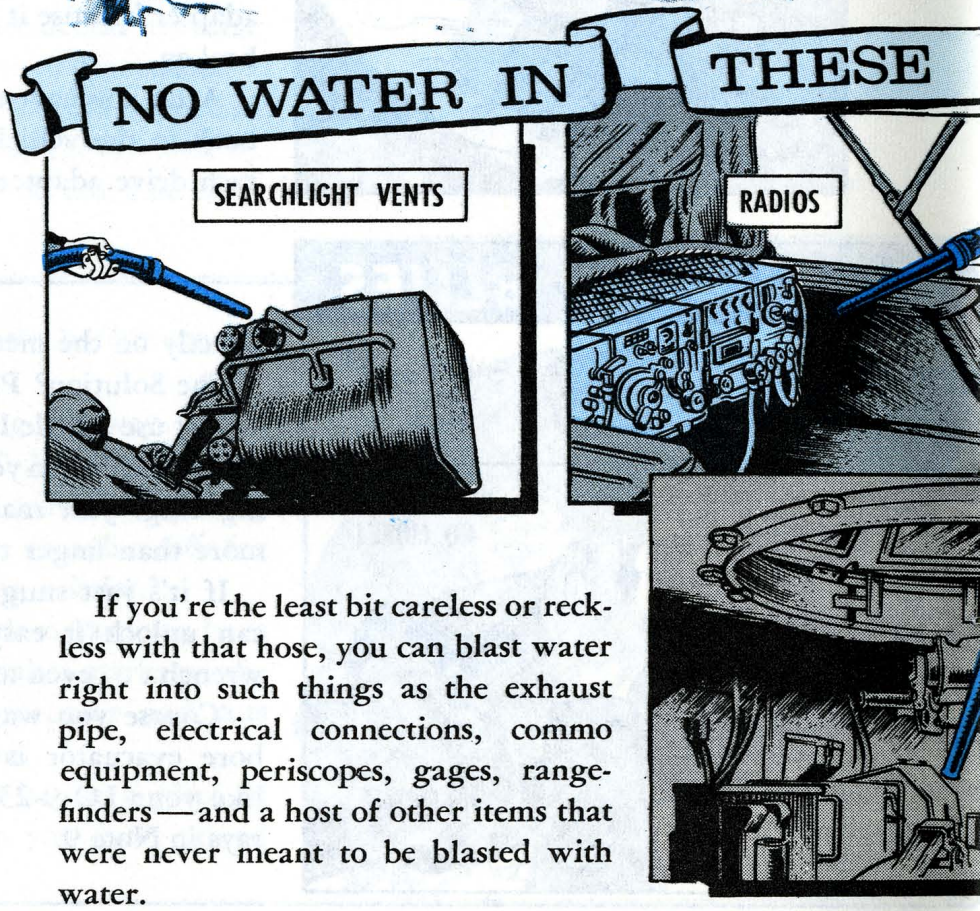
WATCH THAT HOSE

The Army goes to great lengths—and expense — to make your tactical vehicles waterproof. They'll take just about anything nature can throw at 'em.

But no amount of expense and effort can make your vehicle and its mounted equipment hose-proof. Water under pressure from a hose is a hydro-headed monster that can cause more damage to your equipment in one washing than a whole monsoon season.



If you're the least bit careless or reckless with that hose, you can blast water right into such things as the exhaust pipe, electrical connections, commo equipment, periscopes, gages, range-finders—and a host of other items that were never meant to be blasted with water.

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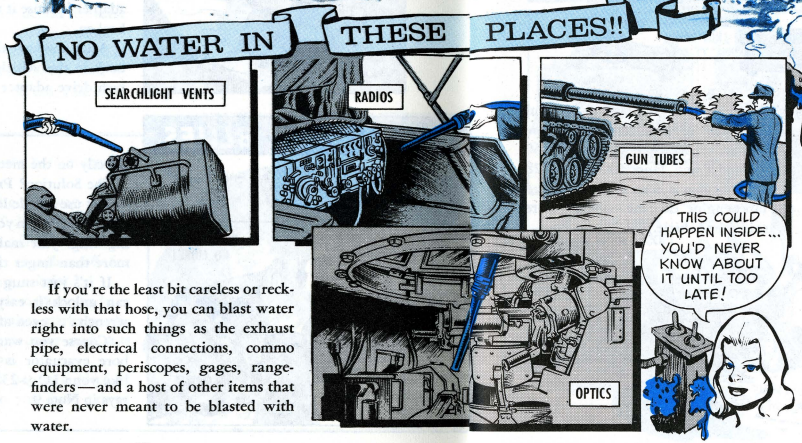

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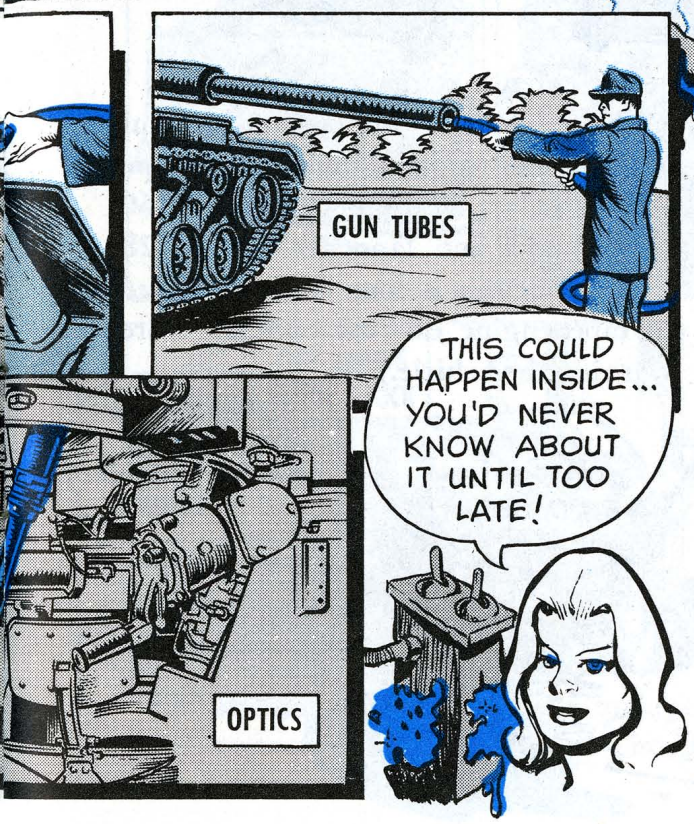
The water works its way into nooks, cracks, lube fittings . . . sneaks past seals and sealing compounds . . . soaks insulation and cushioning material . . . corrodes electrical connections . . . fogs up lenses and optics . . . rusts out unprotected metal . . . and rots and mildews fabrics.

It starts doing this immediately — but even worse, it keeps on doing damage, and you never know it since the dirty work is being done in hidden and dark places. Just because everything seemed to have survived your hose job is no trusty sign there was no damage. Circuit failures, fire control failures and such have a nasty habit of happening right in the middle of tactical operations, but the causes can usually be traced back to careless or neglected preventive maintenance done weeks — or even months — before.

PS MORE

-IT'S LOADED!

PLACES!!



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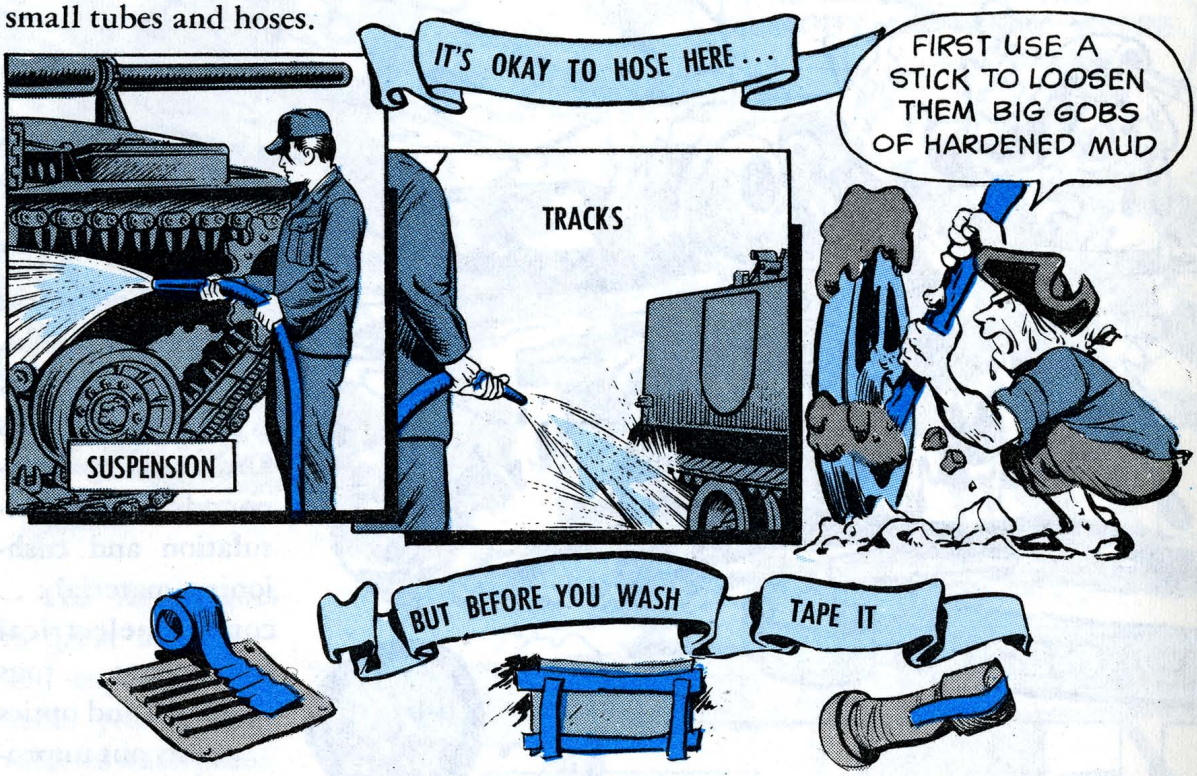
PS MORE

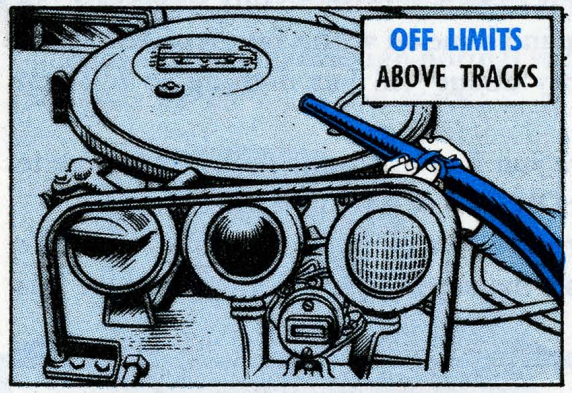
Your high-pressure hose is a special tool for a special job — heavy duty washing around and under the lower part of your vehicle. You blast off heavy dirt that could clog and bust up moving parts. And you clean off dirt that would work into bearings and lube points. You want to be careful about playin' that stream too long in certain places — like where there're bearings, seals, gear case vents and small tubes and hoses.

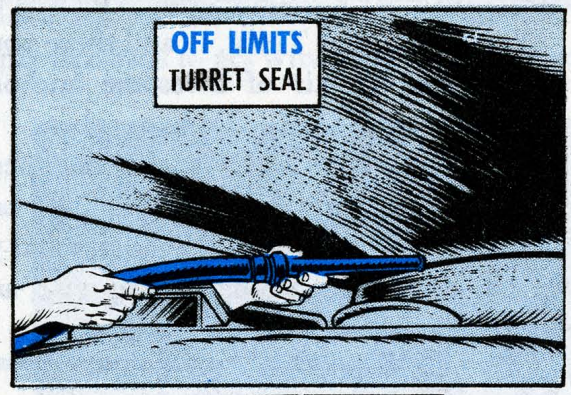


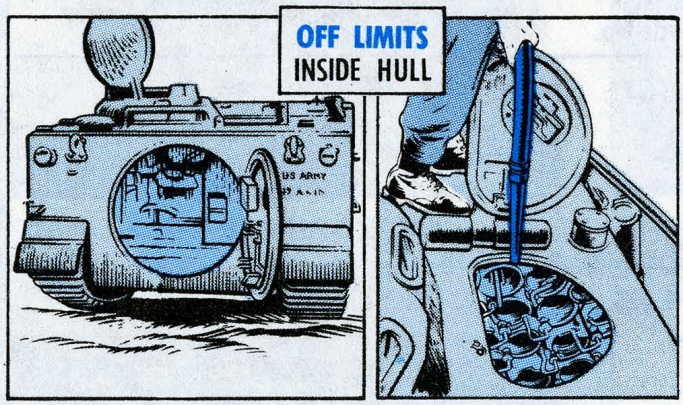
Before you wash the outside of your M48 or M60-series tank or M551 Sheridan with a high-pressure hose, be sure you either tape up the exhaust outlets or keep the engine running. ('Course, when the engine is running the driver has to be in his seat.) You'll also have to either tape or plug the personnel heater exhaust outlet.

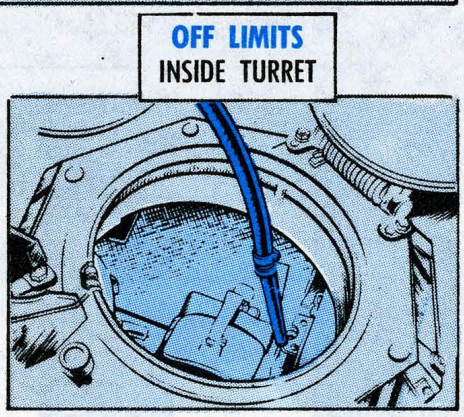
(Note: MWO 9-2300-293-20 (Jul 67) provides for installing exhaust pipe flapper valves on the M48A3 and M60 series tanks and launcher and M728 CEV. After this is done you won't need to tape engine exhaust outlets before washing the vehicle.)

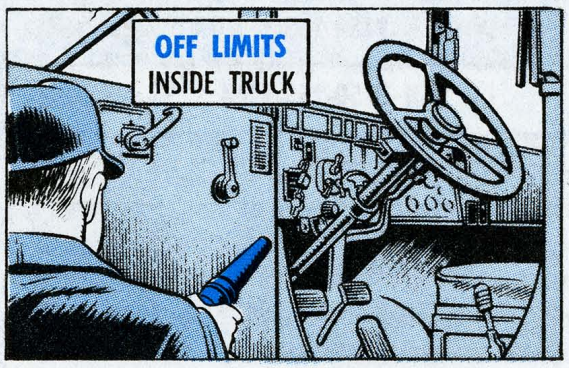
Your high-pressure hose is **not** for those tidy-up jobs on the top side or inside of your vehicle. For this light duty cleaning, check your operator's TM in case there're special instructions. Otherwise, you can usually take care of dust, smears 'n' smudges with a bucket o' water, a little detergent and a rag or brush. For the outside, a long-handled brush and a s-l-o-o-o-w trickle from a hose is OK.

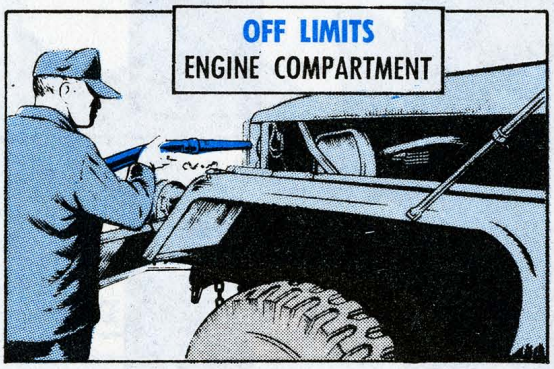












Your high-pressure hose is a tool, sure, but think of it as a weapon, too — be mighty careful where you aim it! There's not much honor in having the "Cleanest" vehicle on the deadline.

PS END

HYDRAULIC FLUIDS . . .

THE ABC'S OF YOUR OHC'S . . . OHT'S . . . ETC'S

It all starts with the LO — that's the word.

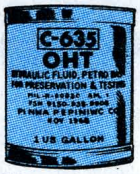
Your equipment's LO usually identifies the hydraulic fluid (or oil) needed for the hydraulic system, recoil mechanism, etc., by the symbols OHA . . . OHC . . . OHT.

So you start looking for the FSN's for the oil called for . . . and things start getting a little sticky right away, which is a heck of a way for an oily subject to get.

You check your TM's . . . and there you find some oil with a bunch of Mil Specs, which have an air of awesome authority about 'em but nothing to tell you whether they're OHC, OHA, or what.

You check Fed Cat C9100-IL and there you find hydraulic fluids from here to yonder but nothing that says OHC . . . or OHT . . . or anything helpful.

Well, to make a sad story short, what you've run into is the fact that the LO's usually speak one language fluid-wise, and the supply pubs speak another. But sweat it no longer . . . here's the poop.

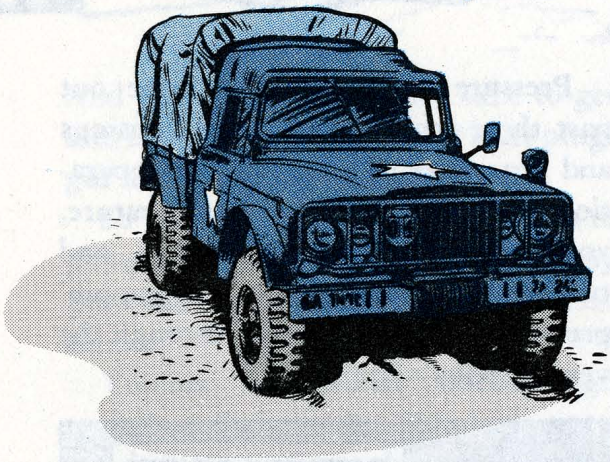
Symbol	Mil Spec	NATO Code No.	Type	Stock Number	Quantity
OHA	MIL-H-5606B	H-515		FSN 9150-252-6383	1 qt
				FSN 9150-223-4134	1 gal
				FSN 9150-265-9408	55 gal drum
OHC	MIL-H-6083B	C-635	I	FSN 9150-265-9413	1 qt
			I	FSN 9150-265-9412	1 gal
			I	FSN 9150-265-9414	5 gal pail
			I	FSN 9150-255-4444	55 gal drum
OHT	MIL-H-6083C	C-635		FSN 9150-935-9807	1 qt
				FSN 9150-935-9808	1 gal
				FSN 9150-935-9809	5 gal pail
				FSN 9150-935-9810	55 gal drum

(NOTE: OHT can be used when OHC is called for.

M715 1¼-TON TRUCK . . .

WINCH DRIVE PARTS

Now you can go through normal supply channels to get winch drive-shaft parts for your M715 1-1/4-ton truck:



Bearing & Flange, FSN 2590-248-0635
Bracket Assy, FSN 2590-248-0636
Collar, FSN 2590-248-0637
Shaft, rear, FSN 2590-248-0638
Shaft, front, FSN 2590-248-0639
Joint Assy, front, FSN 2520-484-0768
Joint Assy, intermediate, FSN 2520-484-0769
Joint Assy, rear, FSN 2520-487 3780*

*Use exception-type data on Request

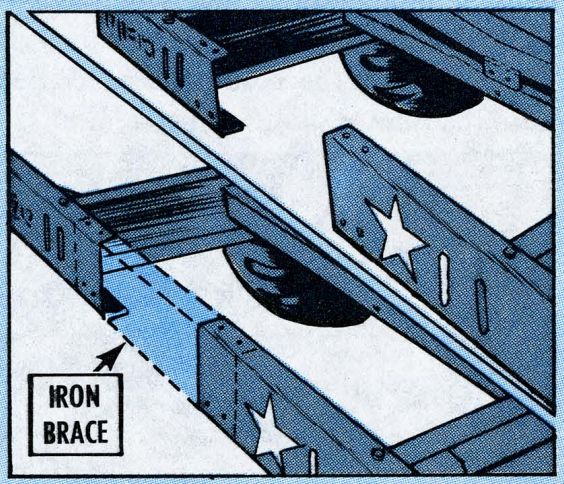
PINCH-HITTER

Dear Editor,

When the winch is taken off an M715 1¼-ton cargo truck, for turn-in or repair, the bumper's left in a pretty weak condition. With no support, the bumper can be easily bent.

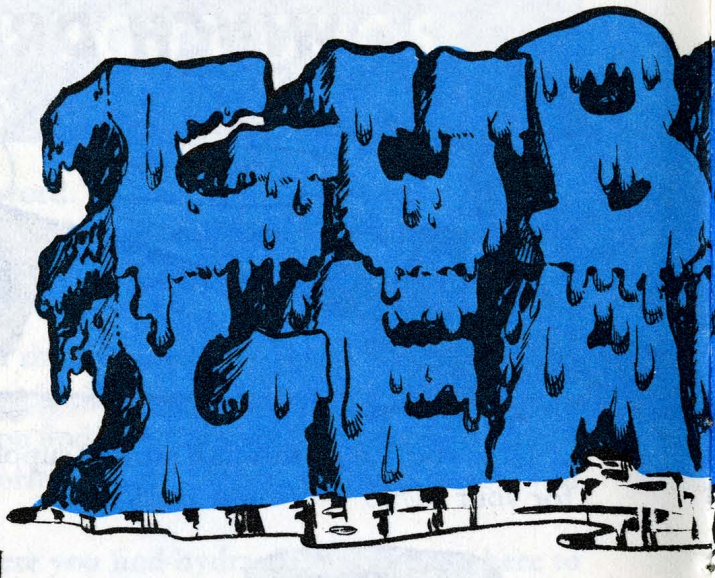
So, we install a temporary support — a piece of angle iron joining the 2 bumper sections. This brace is about 20 inches long and the same heft steel as the bumper. Holes are drilled in it to match up with the winch-mounting holes, and the winch-mounting bolts 'n' nuts are used to hold it in place.

CW2 Andrew J. Leyes
Fort Sill, Okla.



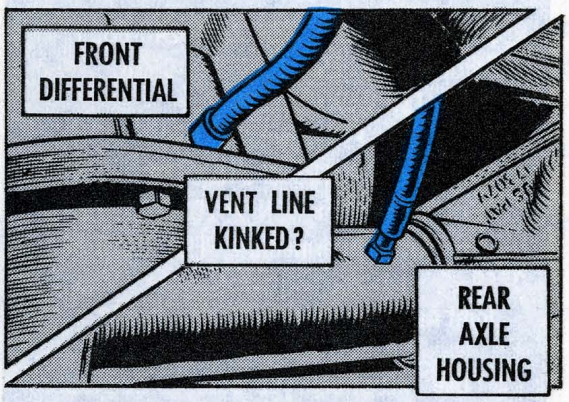
(Ed Note — With priming and painting, per TM 9-213, that's a good fix — simple and inexpensive.)

G890-SERIES 1¼-TON TRUCK . . .

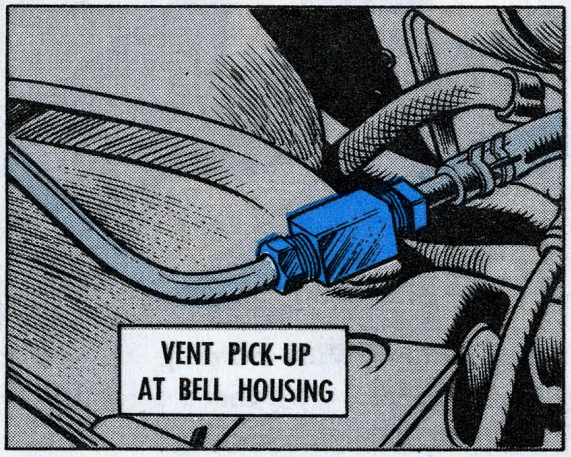


No use lookin' for bum breather valves if your M715 (or other G890-series 1-1/4-ton vehicle) is sufferin' from pressure buildup in axle housings or gear cases. Your 5-quarter doesn't have breather valves like you find on other tactical wheeled vehicles.

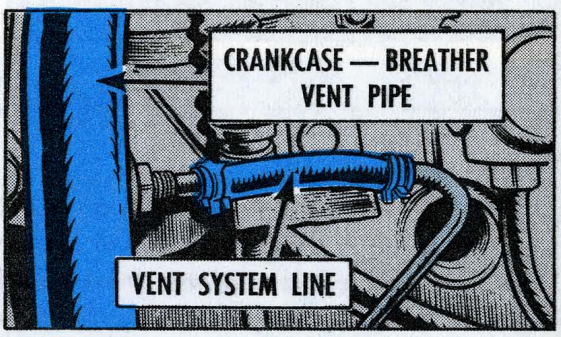
Look, instead, for a kinked, mashed or plugged vent line as a possible cause of your lube leak. This tube 'n' hose network ties into your axle housings, transmission and transfer and even taps into your master cylinder, fuel pump, distributor, etc.



(On early-model 5-quarter trucks you may find a breather valve on top of the transmission. Replace the valve with a pipe plug of the same size—your transmission is vented into the bell housing, and the bell housing is tied into the tube 'n' hose vent system.)

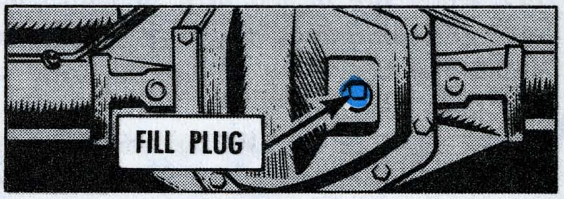


Pressure buildup pushes lube out past those seals in your axle housings and gear cases. With heat from operation and high weather temperature, your differentials, transmission and transfer can build up real seal-poppin' pressure if there's no relief through the vent system.



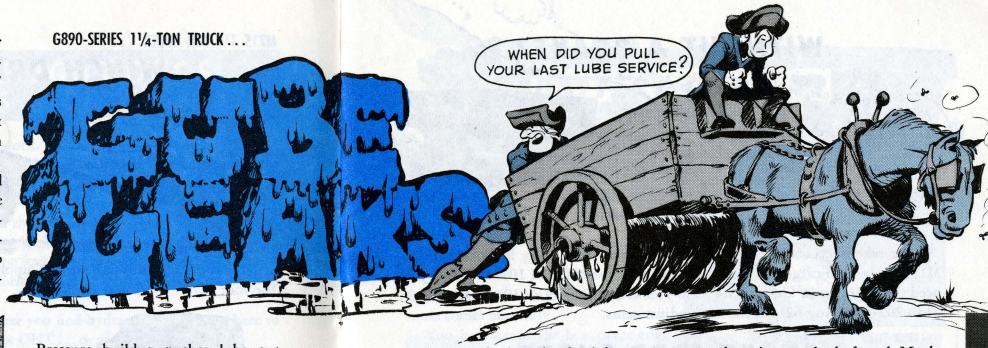
ENOUGH IS ENOUGH!

Overfilling your gear cases is double trouble. You cut down on the room for expansion as heat and pressure build up.



G890-SERIES 1¼-TON TRUCK . . .

GEAR GEARS



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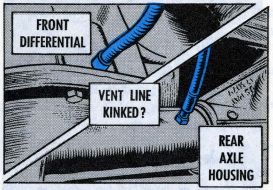

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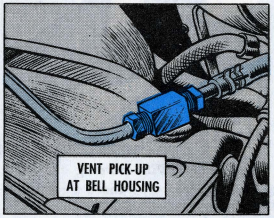

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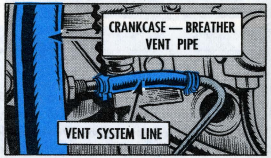

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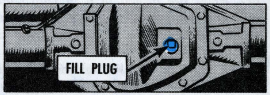
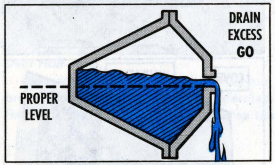


And you make it easier for lube to get into the vent lines where it'll start pluggin' up those tubes 'n' hoses.

So take it slow 'n' easy when you're pumpin' GO into a gear case—**any** gear case—**only up to the fill hole, no more!**

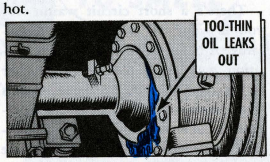
You may think GO isn't thick enough to "pile up" above the fill hole, but you can do it if you throw the lube to 'er too fast and then slap in the plug quick. Hold off with the plug until you're sure you've got the GO leveled off right at the fill hole.



GO TO GO 90

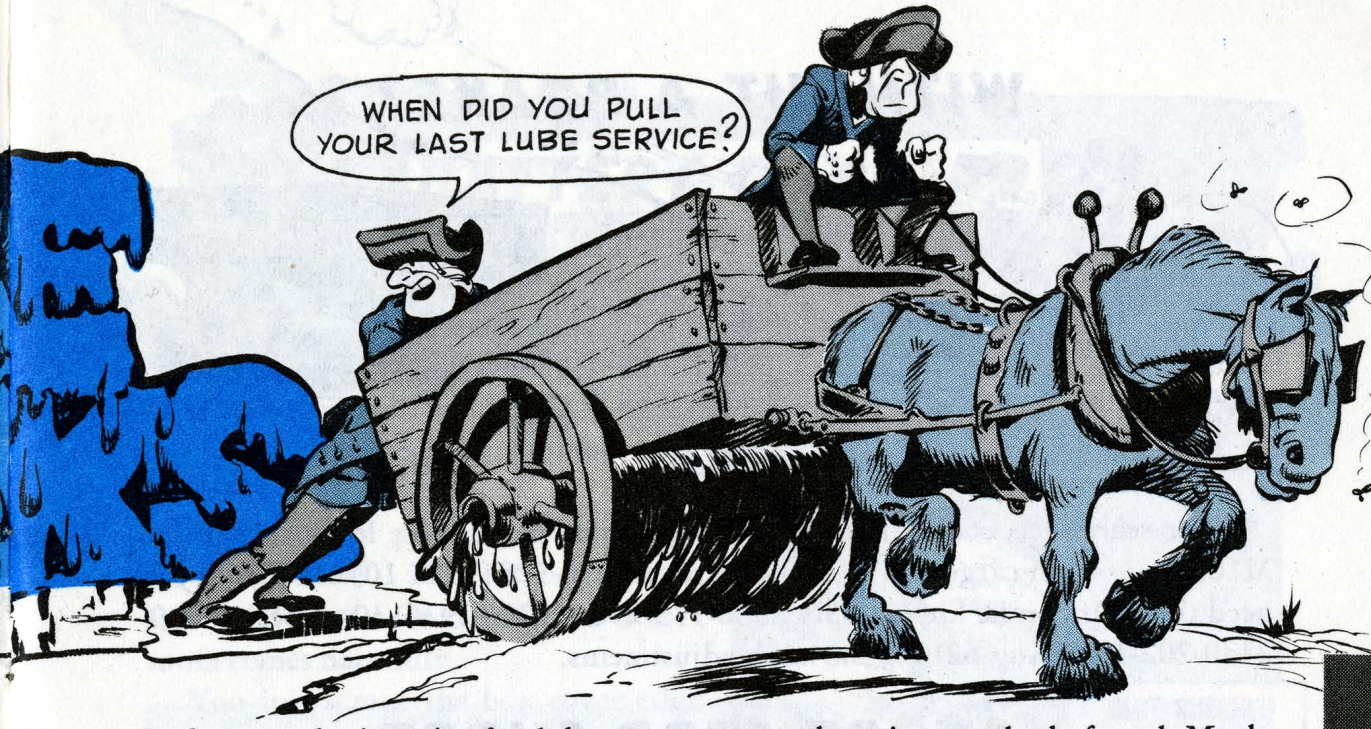
Sloppy steering knuckles? This could be GO seepin' out of the differential past a bum inner axle shaft seal. Maybe there's pressure buildup in the differential caused by a plugged or kinked vent line.

But don't start tearin' things apart—not yet. If yours is a new 5-quarter, it's probably carryin' GO 80 in the differentials. This's too thin if you're where it's hot.



Drain the GO80 and put in GO 90—the lube specified by LO 9-2320-244-12 (Oct 67).

LUBRICANTS	EXPECTED TEMPERATURE above +32°F	+30°F to -10°F	0°F to
OE - OIL LUB, ENGINE	OE 30	OE 10	OE
GO - LUBRICANT, GEAR, UNIVERSAL	GO 90	GO 75	GO
GAA - GREASE, LUBE,			



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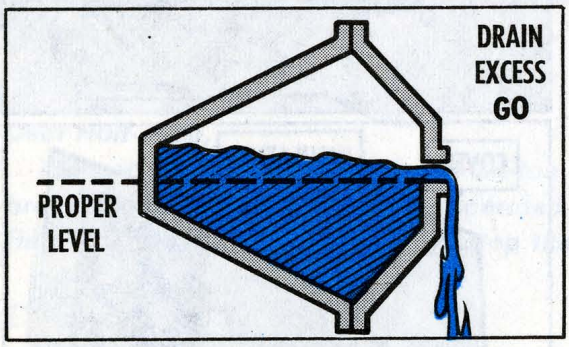

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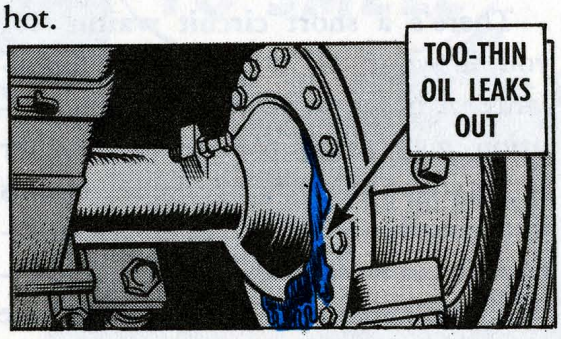

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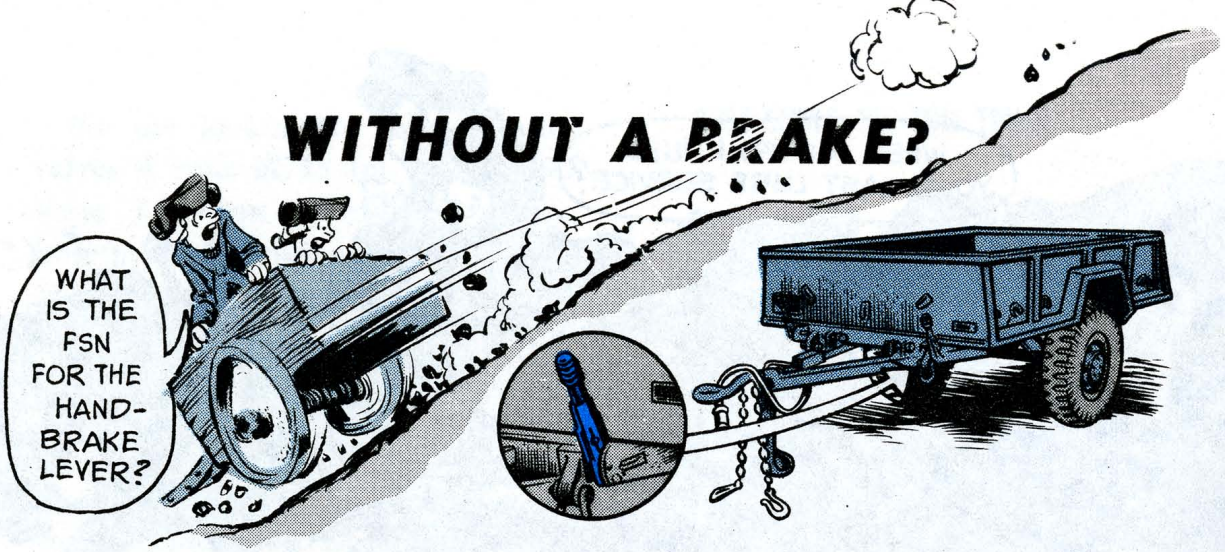
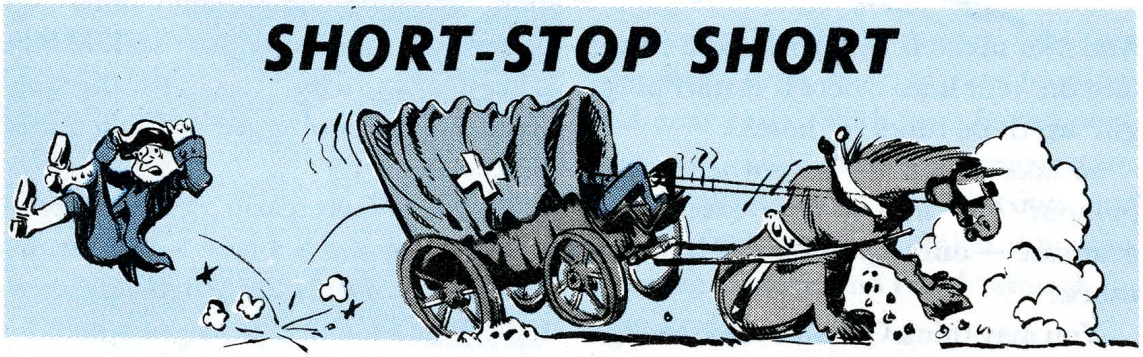
OE - OIL LUBR, ENGINE	OE 30	OE 10	OE
GO - LUBRICANT, GEAR, UNIVERSAL	GO 90	GO 75	GO
GAA - GREASE, LUBR,			

WITHOUT A BRAKE?



Your search has ended if you're looking for the handbrake lever FSN of the M101A1 3/4-ton cargo trailer. It's FSN 2530-936-5284 (PN 10926073). If you need the entire brake kit, it's FSN 2530-973-2504 (PN 10926130). Check TM 9-2330-202-14P (Aug 62) for the knob adjustments.

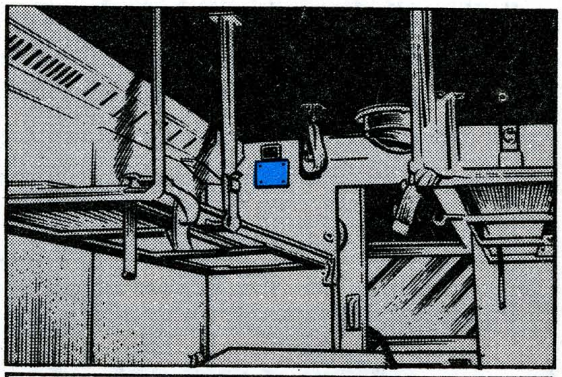
SHORT-STOP SHORT

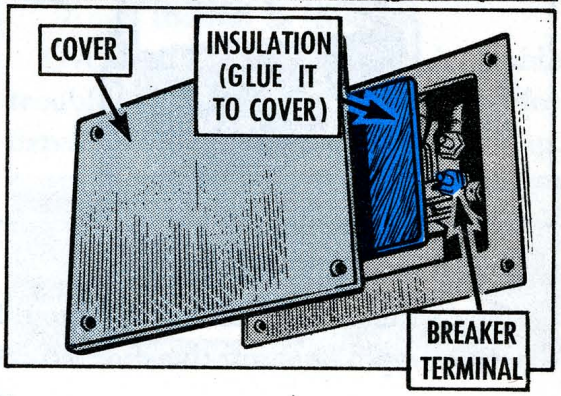


There's a short circuit waitin' for you in your M725 1-1/4-ton ambulance. A bump or push against the partition may cause the circuit breaker access cover to hit the breaker terminals underneath — PHHHHT — short circuit. So cut an insulating pad, 3-3/4-by-2-3/4-in, from 1/8-in thick neoprene material and glue it on the inside of the cover.

A 36-by-36-in sheet of neoprene comes under FSN 9320-945-6560 in Fed Cat C9300-IL-A (Apr 70).

Use adhesive, FSN 8040-664-4318 (that's 1 pint — smaller and larger amounts are in Fed Cat C8000-IL-A (Oct 69), Table 260, Spec MIL-A-3092, Type II).



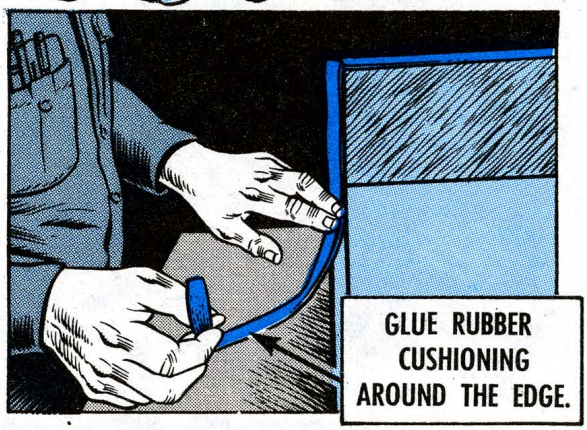


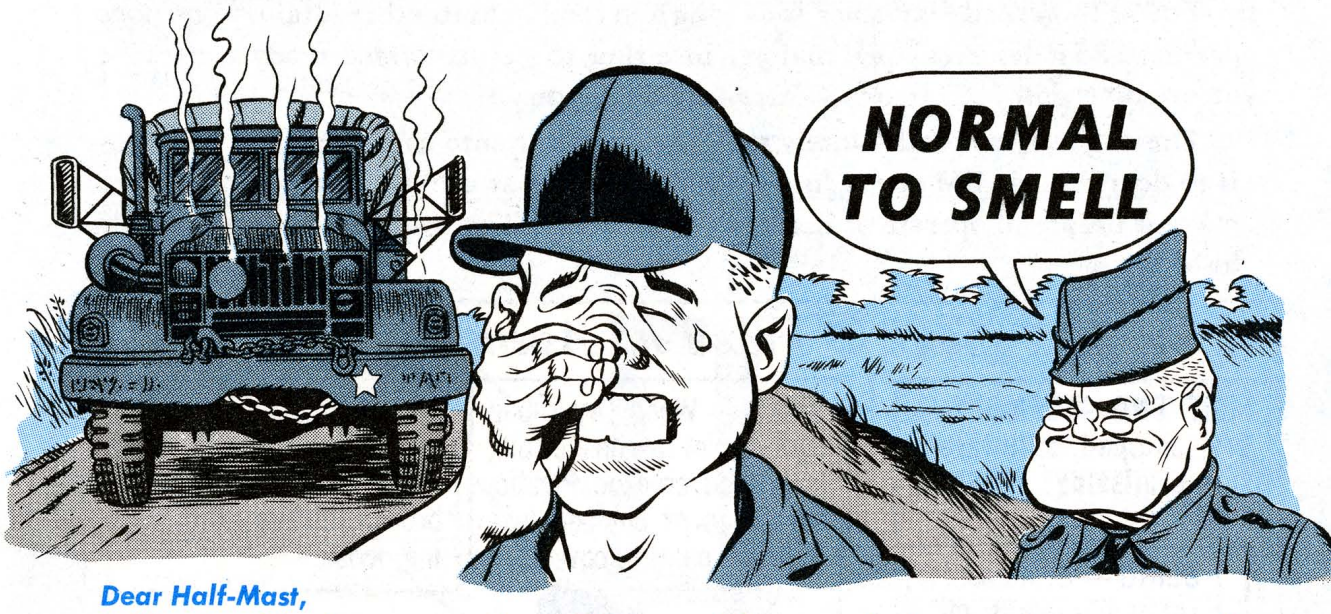
You can get rid of the rattle in the 1-1/4-ton truck battery box by using your head.

With rubber pad cushioning, FSN 9320-824-8816, and adhesive, FSN 8040-262-9031, your handy fix-it formula comes naturally.

You just scrape the box cover edge clean, snip a new strip and glue it on.

This way, you'll enjoy the quiet ride.





Dear Half-Mast,

We get gigged on some of our 2½-ton and 5-ton trucks because inspectors smell brake fluid when the brakes are operated. When we tear down the system, we can't find anything wrong. How do we stop the smell?

SSG W. L. S.

Dear Sergeant W. L. S.,

You don't stop the smell. It's normal for a vehicle with its air-over-hydraulic brake system vented to the engine air intake.

If your brakes operate OK and your master cylinder's up to snuff on brake fluid, you're in the clear.

Half-Mast

The M79 grenade launcher is as tough in combat as its other infantry weapons partners. So it deserves equal maintenance time to stay as combat-ready as the rifle or machine gun your buddy's carrying beside you.

The only way to be absolutely sure you don't run into nasty situation surprises is to do a regular PM check for any rough spots that could cause a malfunction, make it unsafe to operate or damage the launcher. The real serious things are **in bold type.**

Stock & Fore End Assemblies

FORE END ASSEMBLY — Dry, chipped, splintered; screw **missing, sheared,** loose.

STOCK — Wood: Dry (rub in light coat of raw linseed oil), splintered, cracked. Plastic: Scratched or chipped (use touch-up paint to cover).

RECOIL PAD — Rubber frayed, battered, loose, missing; screws stripped, loose, broken, missing; plugs missing, loose.

SLING — Broken, frayed, rotting; clamps missing, won't hold, weak.

SWIVELS — Bind, stick, twisted; screws loose, sheared, missing.

RECEIVER RETAINING SCREW — **Missing,** sheared, loose, burred; washers **missing,** busted; screw hole split, stripped.

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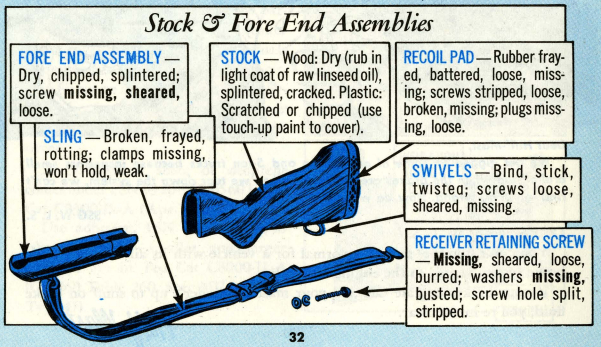
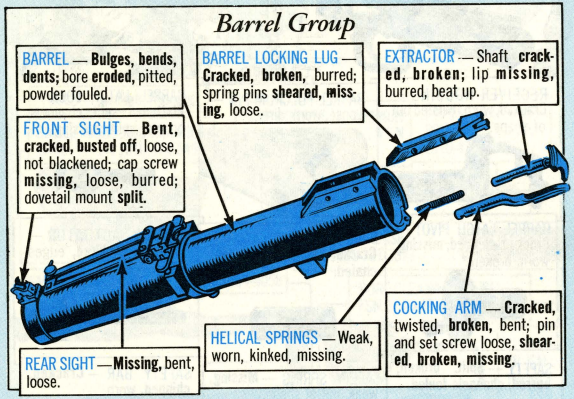
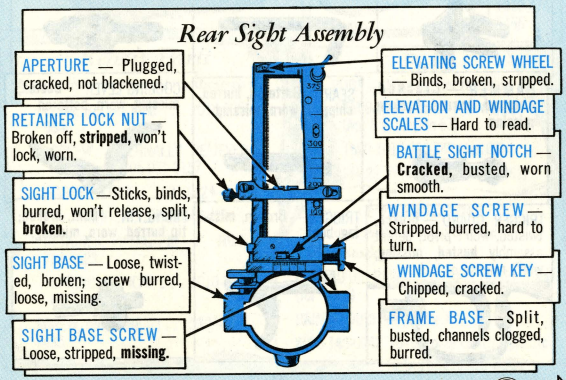


GRENADE LAUNCHER

Barrel Group



Rear Sight Assembly



MORE

GRENADE LAUNCHER

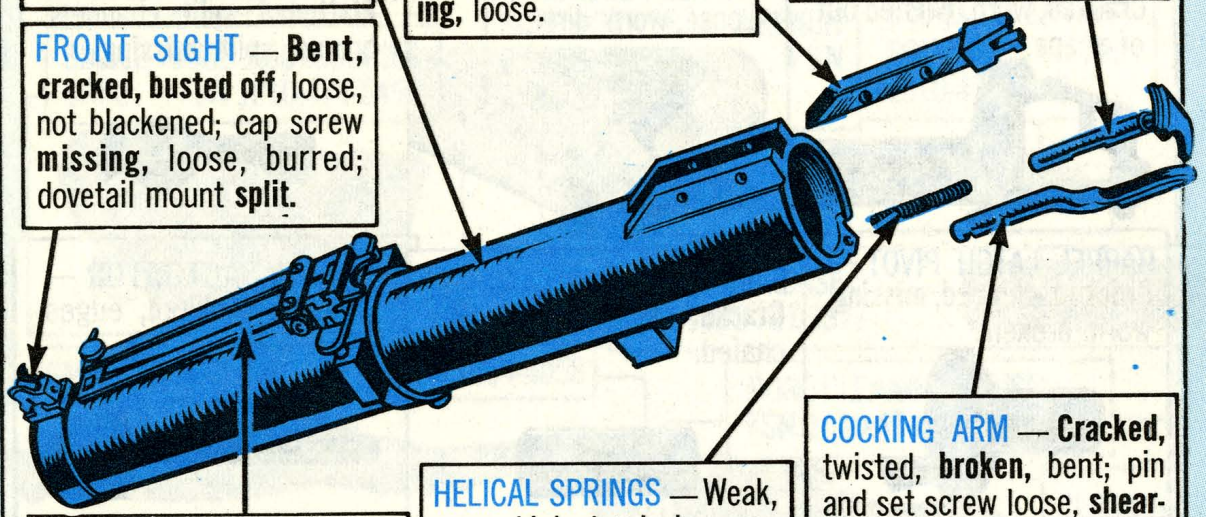
Barrel Group

BARREL — **Bulges, bends, dents;** bore **eroded,** pitted, powder fouled.

BARREL LOCKING LUG — **Cracked, broken,** burred; spring pins **sheared, missing,** loose.

EXTRACTOR — Shaft **cracked, broken;** lip **missing,** burred, beat up.

FRONT SIGHT — **Bent, cracked, busted off,** loose, not blackened; cap screw **missing,** loose, burred; dovetail mount **split.**



COCKING ARM — **Cracked,** twisted, **broken,** bent; pin and set screw loose, **sheared, broken, missing.**

HELICAL SPRINGS — Weak, worn, kinked, missing.

REAR SIGHT — **Missing,** bent, loose.

Rear Sight Assembly

APERTURE — Plugged, cracked, not blackened.

ELEVATING SCREW WHEEL — Binds, broken, stripped.

ELEVATION AND WINDAGE SCALES — Hard to read.

RETAINER LOCK NUT — Broken off, **stripped,** won't lock, worn.

BATTLE SIGHT NOTCH — **Cracked,** busted, worn smooth.

SIGHT LOCK — Sticks, binds, burred, won't release, split, **broken.**

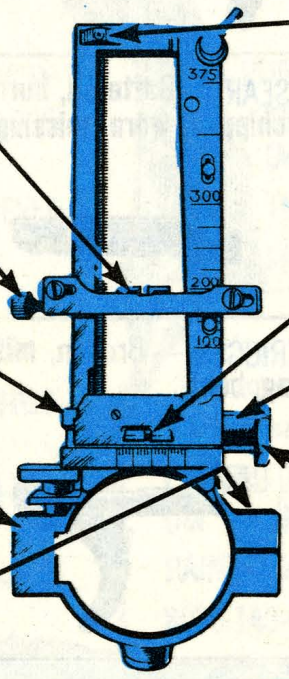
WINDAGE SCREW — Stripped, burred, hard to turn.

SIGHT BASE — Loose, twisted, broken; screw burred, loose, missing.

WINDAGE SCREW KEY — Chipped, cracked.

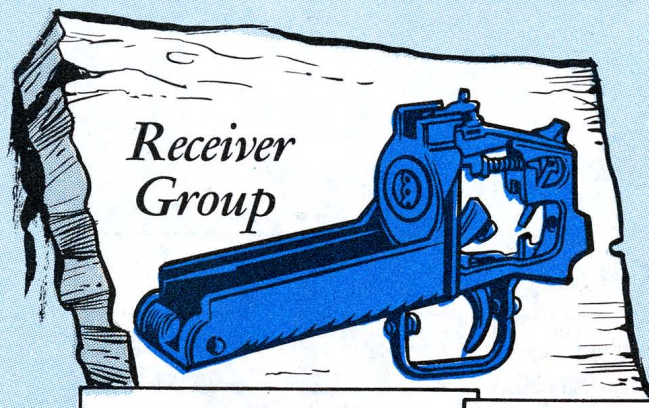
SIGHT BASE SCREW — Loose, stripped, **missing.**

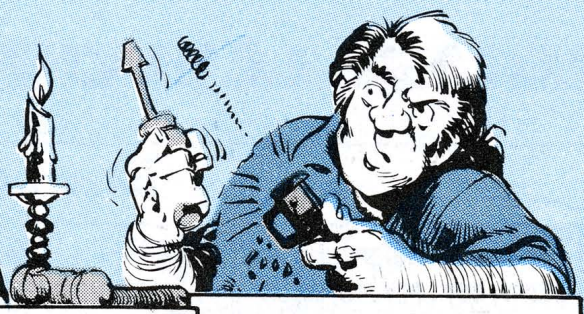
FRAME BASE — Split, busted, channels clogged, burred.



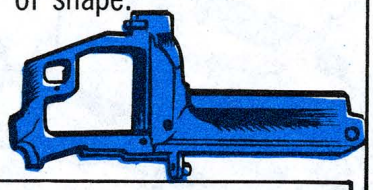
PS MORE

Receiver Group

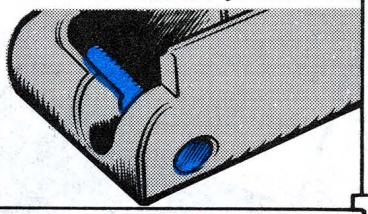




RECEIVER HOUSING — **Cracked,** worn, twisted out of shape.



BARREL FULCRUM PIN — Loose, worn, dirty.



BARREL LATCH LOCK — **Flattened, split;** channels burred, split, **missing.**

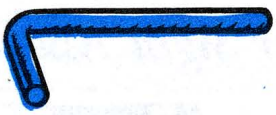
BARREL LATCH PIVOT — **Cracked, chipped, missing,** worn, broken.

BARREL LOCKING LATCH — **Cracked, split, bent,** edges chafed.

SAFETY ACTUATOR — **Broken, cracked,** edges worn.

SAFETY — **Split, broken, burred, channels fouled.**

SAFETY SPRING — **Missing,** weak, out of shape.

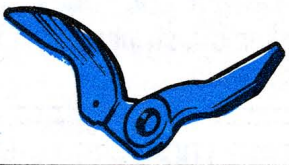


SAFETY BAR — **Cracked, chipped,** worn.

HAMMER — **Cracked, chipped, burred, broken, missing.**

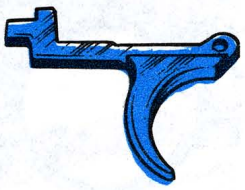
SEAR — **Battered, burred, chipped, worn, missing.**

COCKING LEVER — **Busted, missing,** worn, battered.

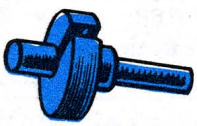


TRIGGER GUARD — **Broken,** twisted, won't pivot; detent assembly **busted, missing,** won't release or lock.

TRIGGER — Broken, **missing,** bent.

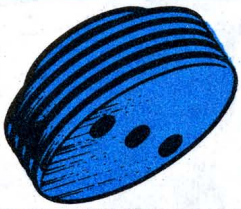


FIRING PIN — **Bent, broken;** tip **burred, worn, missing.**



HELICAL SPRING — **Kinked,** weak, ends burred, worn, **missing.**

RETAINER — Threads **stripped,** burred, holes plugged; **missing,** loose (tighten with combination tool).



Tools

TOOLS — **Broken, Missing**

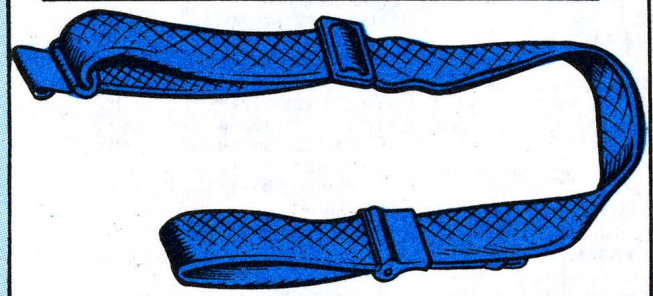
SMALL ARMS ACCESSORIES CASE . . . FSN 1010-474-5462

SCREWDRIVER & WRENCH COMBINATION . . . FSN 4933-736-8575

SMALL CLEANING BRUSH . . . FSN 1010-474-5468

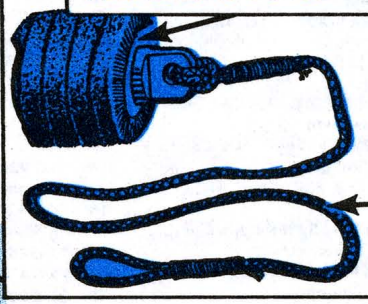
LUBRICANT CASE . . . FSN 1005-791-3377

SMALL ARM SLING . . . FSN 1005-654-4058



BORE CLEANING BRUSH . . . FSN 1010-474-5466

CLEANING BRUSH THONG . . . FSN 1010-474-5465



Repair Parts

Unit armorers can replace these parts:

PLUG, RECOIL PAD . . . 1010-065-9646

SCREW, EXTERNALLY RELIEVED BODY . . . 5305-921-6157

WASHER, LOCK . . . 5310-824-5503

PIN, FIRING . . . 1010-704-6621

RETAINER, FIRING PIN . . . 1010-704-6623

SPRING, HELICAL . . . 1010-704-6606

SCREW, MACHINE (2) . . . 5305-899-7435

Pubs

PUBS — Missing, not readable

TM 9-1010-205-12 (Feb 61), C1 (Apr 65), C2 (Jan 67)

TM 9-1010-205-24P (Jun 68)

FM 23-31 (May 65), C1 (Aug 67)

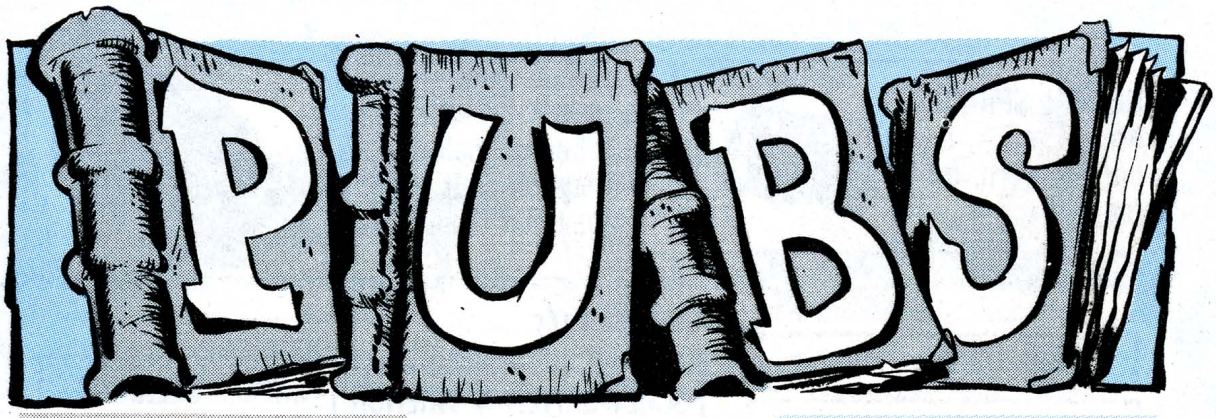
Preservatives

Armorers should have these for the stocks:

LINSEED OIL, RAW . . . 8010-221-0611 1-gal (for wood)

PAINT, TOUCH UP, Color No. 30045 . . . 8030-145-0042 16-oz spray can (for plastic).

PS END



This is a selected list of recent pubs of interest to organizational maintenance personnel. This list is compiled from recent AG Distribution Centers Bulletins. For complete details see DA Pam 310-4 (Jun 69), and Ch 2 (Oct 69), TM's, TB's, etc.; DA Pam 310-6 (Jul 69), and Ch 2 (Jan 70), SC's and SM's; DA Pam 310-7 (Dec 69), MWO's and DA Pam 310-9 (May 69), COMSEC Pubs.

TECHNICAL MANUALS

TM 3-1055-218-12, Oct, Launcher, Rocket: 66MM, 4-Tube, XM202.
TM 3-1310-243-10, C2, Dec, XM651E1 Tactical CS, 40MM Cartridge.
TM 5-2410-227-15, Dec, Tractors, Tracked, Light.
TM 5-2410-231-20P, Dec, Tractor, FT Med.
TM 5-3805-245-20P, Nov, Loader, Scoop.
TM 5-3810-289-20P, Nov, Crane-Shovel, Crawler Mtd 12½ Ton.
TM 5-4120-222-14, Nov, Air Cond, 18,000 BTU Compact.
TM 5-4120-273-20P, Dec, Air Cond, 6000 BTU.
TM 5-4120-308-15, Nov, Air Cond, 18,000 BTU, Compact.
TM 5-4120-312-14, Nov, Air Cond, 18,000 BTU, Compact.
TM 5-4120-312-24P, Nov, Air Cond. 18,000 BTU, Compact.
TM 5-4120-333-12, Oct, Air Cond, Tlr Mtd, 18,000 BTU/HR.
TM 5-4310-247-20P, Dec, Air Comp, 250 CFM.
TM 5-4310-339-15, Dec, Comp, Air 15 CFM.
TM 5-4610-208-14, Oct, Water Purif, Unit.
TM 5-4610-210-14, Nov, Equipment, Water Purif, 100 GPM.
TM 5-4610-223-15, Sep, Water Purif, Equip.
TM 5-4930-221-24P, Nov, Equipment: Fueling Sys.
TM 5-4930-222-15, Dec, Drum And Pump Unit, Liquid Disp.
TM 5-6115-238-20P, Dec, Gen Sets, 60 KW, 60 hertz.
TM 5-6115-275-15, Jul, Gen Sets, 10 KW, 60 hertz.
TM 5-6115-293-20P, Nov, Gen Sets, 100 KW, 60 hertz.
TM 5-6675-205-20P, Dec, Theodolite.
TM 5-6675-227-25P, Dec, Survey Instru, Electronic, Microwave.
TM 9-1340-202-12, Oct, Honest John.
TM 9-1430-383-20P, Nov, Pershing.
TM 9-1430-505-12/2, Nov, Hawk.
TM 9-1430-512-15P, Oct, Simulator Station AN/TPQ-21 (XO-1) Hawk.
TM 9-1440-250-25P/1/1, Dec, Nike-Herc.
TM 9-1440-380-20P, Nov, Pershing.
TM 9-1450-379-20P, Dec, Pershing.
TM 9-2320-218-10, C1, Dec, ¼-Ton Truck, M151.
TM 9-2330-211-14, Oct, Semitrailer, M172, M172A1.
TM 9-6625-1856-14/2, Nov, Chaparral.
TM 9-6625-2464-15, Dec, High Voltage Probe XM163 20MM Gun.
TM 9-6625-2466-15, Dec, Voltmeter, RF, XM 163 20-MM Gun.
TM 9-6625-2468-15, Dec, Generators for XM163 20-MM Gun.
TM 10-3930-242-20P, Nov, 6000 lbs Anthony and Chrysler Forklift.
TM 10-3930-243-20P, Jan, Rough Terrain Forklift.
TM 11-5820-510-12-1, Sep, Radio AN/PRC-41A.
TM 11-5820-783-25P, Dec, AN/TRQ-23 Radio.
TM 11-5820-784-25P, Dec, Receiver R-902/GR.
TM 11-5825-242-10, Dec, Receiver AN/TRQ-23.
TM 11-5825-242-25, Dec, Receiver AN/TRQ-23.
TM 11-5825-242-25P, Dec, Receiver AN/TRQ-23.
TM 11-5985-324-15, Oct, Antenna Grp AN/TRA-37.

ESC's

TM 5-3800-203-ESC, C1, Dec, Crane-Shovels, Truck Mtd, 20 Ton.
TM 9-1005-286-ESC, Dec, XM167 20-MM Gun.
TM 9-1015-223-ESC, Nov, M67 90-MM Recoilless Rifle.
TM 9-1400-250-ESC, Nov, Nike-Herc, Imp Nike-Herc, Nike-Herc ATBM.
TM 9-2300-224-ESC, C1, Nov, M113, M577, M106, M132 Carriers.
TM 9-2320-212-ESC, May, ¾-Ton Truck M37, M37B1, M43, M43B1, M201, M201B.
TM 9-2320-218-ESC, Mar, Truck, M151, M718.
TM 9-2350-330-ESC, Dec, XM163 20-MM AA Artillery.

MODIFICATION WORK ORDERS

9-1240-306-40/1, Feb Telescope, Panoramic M113.
9-2350-217-30/16, Jan, Installation of Collimator, M109 Howitzer.
11-5810-214-45/8, Jan, COMSEC Equip Code 214.
11-5810-221-35/4, Jan, COMSEC Equip Code 221.
55-1510-201-30/6, C2, Jan, U-8.
55-1520-210-30/5, C1, Feb, UH-1D.
55-1520-221-30/19, Dec, AH-1G.
55-1520-221-30/24, Jan, AH-1G.
55-1520-221-30/28, Feb, AH-1G.
55-1520-228-20/1, Jan, OH-58.
55-2835-203-30/1, Jan, CH-47.

LUBRICATION ORDERS

LO 5-4310-339-12, Dec, Air Comp, 15 CFM 175 PSI.
LO 9-1005-286-10, Nov, XM167 20-MM Gun.
LO 9-2320-224-12, Nov, M114 Carrier.
LO 10-3930-619-12, Nov, Trucks, Forklift, GED, 2000 pound cap.

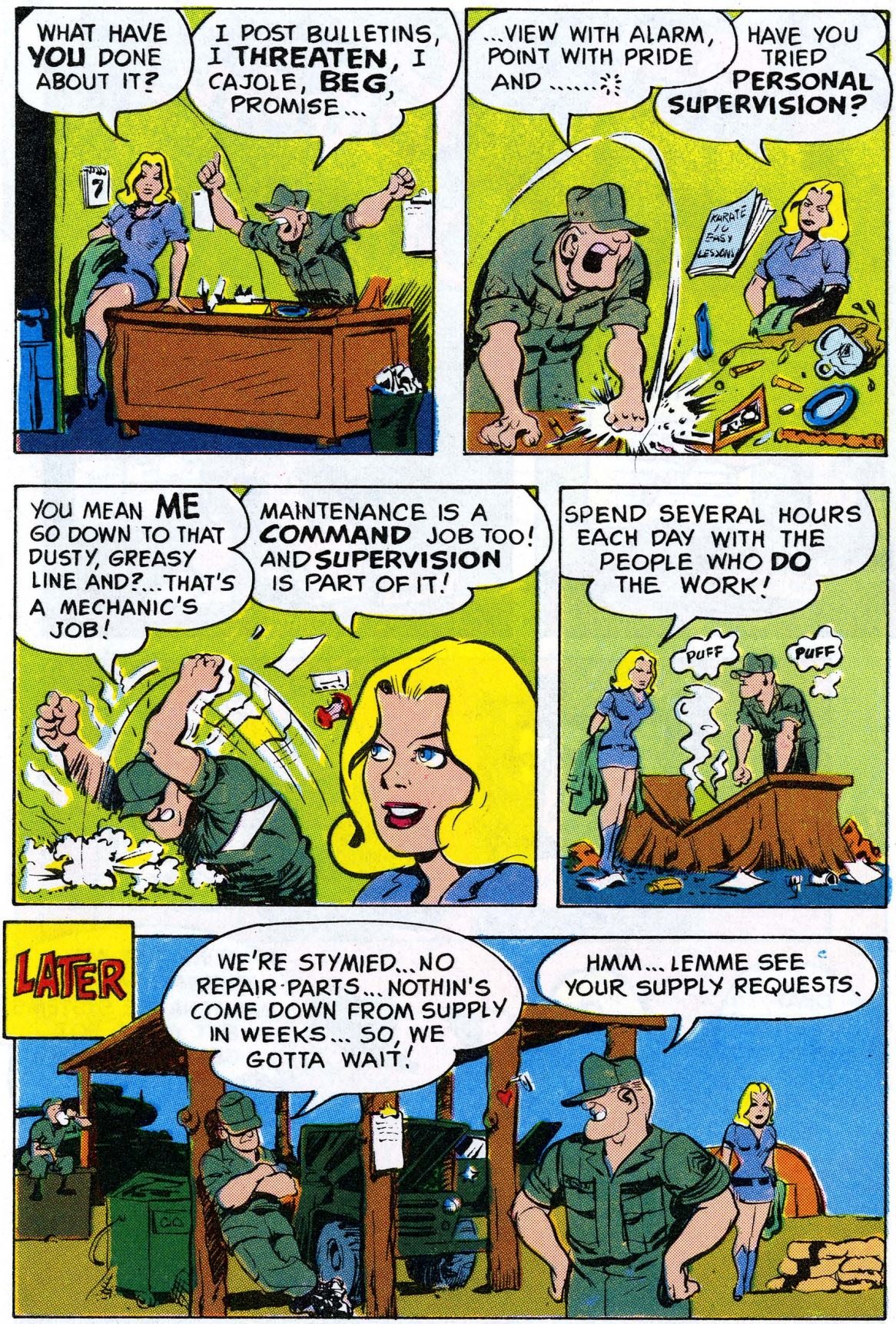
MISCELLANEOUS

AR 220-1, C1, Dec, Unit Readiness.
DA Cir 385-24, Jan, M151-Series ¼-Ton Truck Safety.
DA Form 2408, Jan, Equipment Log Assy (Records).
DA Form 2418, Jan, Backlog Status & Workload Account Card.
SC 4935-95-CL-A59, Oct, GM: Tool Kit, Missile Repairman, Lance.
SC 4940-97-CL-E03, Nov, Shop Equip, Gen Purp Repair, Semi-trailer Mounted.
TB 750-97-28, Feb, Maintenance Expenditure Limits For Mil Std Eng.
TB 750-242-3, Nov, IM-9/PD, IM-93/PD, IM-147/PD Radio Equip.

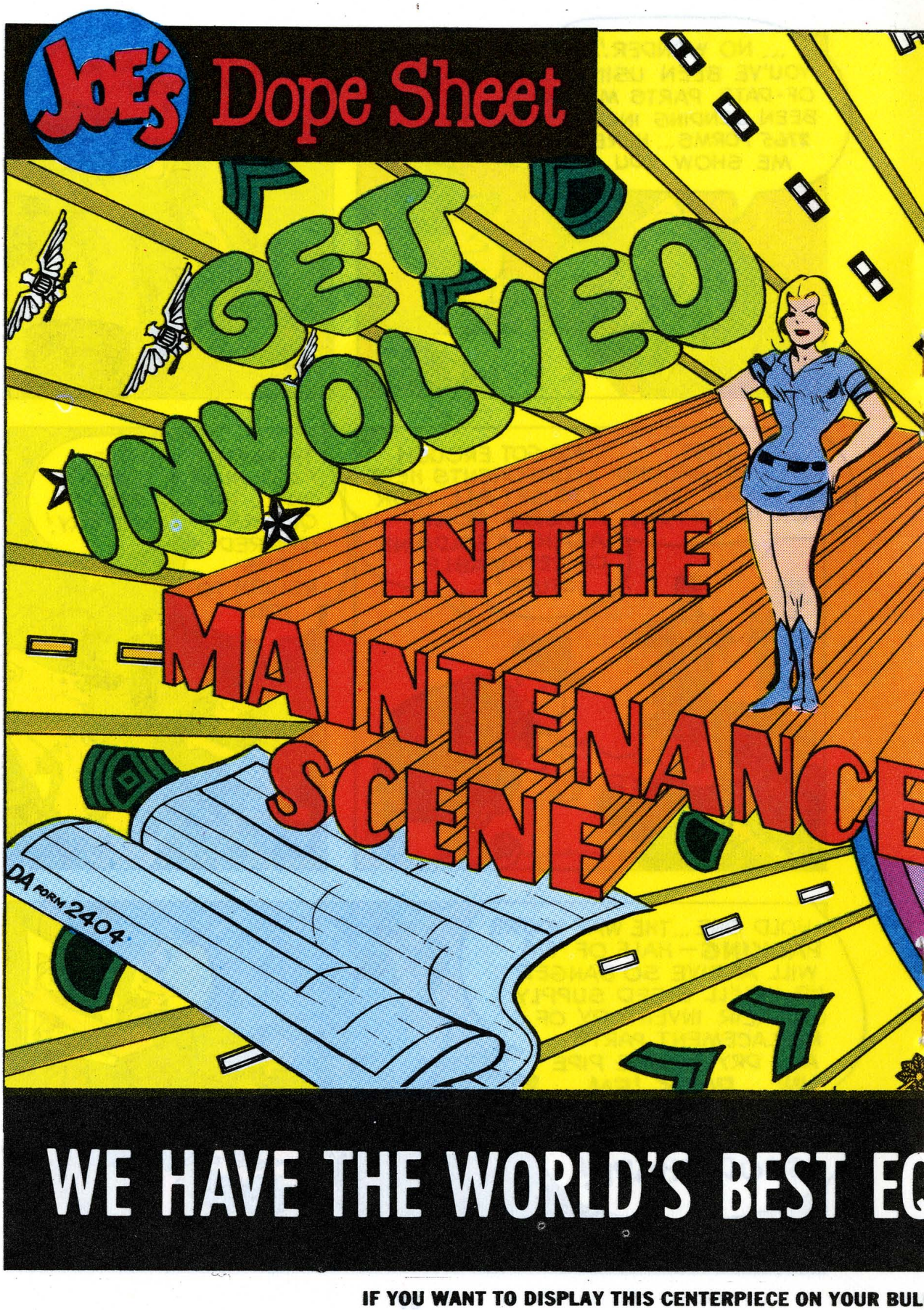
CMMI Coming?

If you've got multifuel engine trucks, you'd better make sure you're covered on DA Pam 750-11 (May 68) — The Multifuel Engine Operator. You've got to have a copy for every multifuel operator.

JOE'S DOPE
POREBOY'S COMPLAINT
BN COMBAT READINESS STATUS
LTC HARDGASS
CO.B EQUIPMENT STATUS
1ST PLT
2ND PLT
3RD PLT
CPT RAY
CO.B
DEADLINE STATUS
OKAY POREBOY!! ...WHAT'S YOUR COMPLAINT ?
WE GOT ALL KINDSA PM AND MAINTENANCE SYSTEMS! ...BUT WE'RE NOT GETTING COMBAT READY EQUIPMENT.


WHAT HAVE YOU DONE ABOUT IT?
I POST BULLETINS, I THREATEN, I CAJOLE, BEG, PROMISE...
...VIEW WITH ALARM, POINT WITH PRIDE AND .....
HAVE YOU TRIED PERSONAL SUPERVISION?
KARATE IN EASY LESSONS
YOU MEAN ME GO DOWN TO THAT DUSTY, GREASY LINE AND?...THAT'S A MECHANIC'S JOB!
MAINTENANCE IS A COMMAND JOB TOO! AND SUPERVISION IS PART OF IT!
SPEND SEVERAL HOURS EACH DAY WITH THE PEOPLE WHO DO THE WORK!
PUFF
PUFF
LATER
WE'RE STYMIED...NO REPAIR PARTS...NOTHIN'S COME DOWN FROM SUPPLY IN WEEKS... SO, WE GOTTA WAIT!
HMM... LEMME SEE YOUR SUPPLY REQUESTS.

... NO WONDER!! YOU'VE BEEN USING OUT-OF-DATE PARTS MANUALS... BEEN SENDING INCOMPLETE 2765 FORMS... HERE, LET ME SHOW YOU.
... HEY?!... WHAT'RE THESE DOIN' HERE??
...WE JUST NEVER GOT AROUND TO SENDIN' 'EM BACK TO SUPPORT.
YOU GOT ENOUGH COMPONENTS HERE TO GET ALL YOUR WHEELS ROLLIN' AGAIN... A GOLDMINE OF REPAIRABLE STUFF!
TH' FASTER Y'GET THEM OUT... TH' QUICKER REPAIRED ITEMS RETURN TO YOU!
GEE, I DIDN'T SEE IT THAT WAY!
HOLD ONE... THE WAY YOU'RE PACKING— HALF OF 'EM WILL ARRIVE SO BANGED UP YOU'LL BLEED SUPPLY OF THEIR INVENTORY OF REPLACEMENT PARTS AND DRY UP THE PIPE LINE... PACK 'EM SO THEY'LL GET THERE IN GOOD SHAPE!



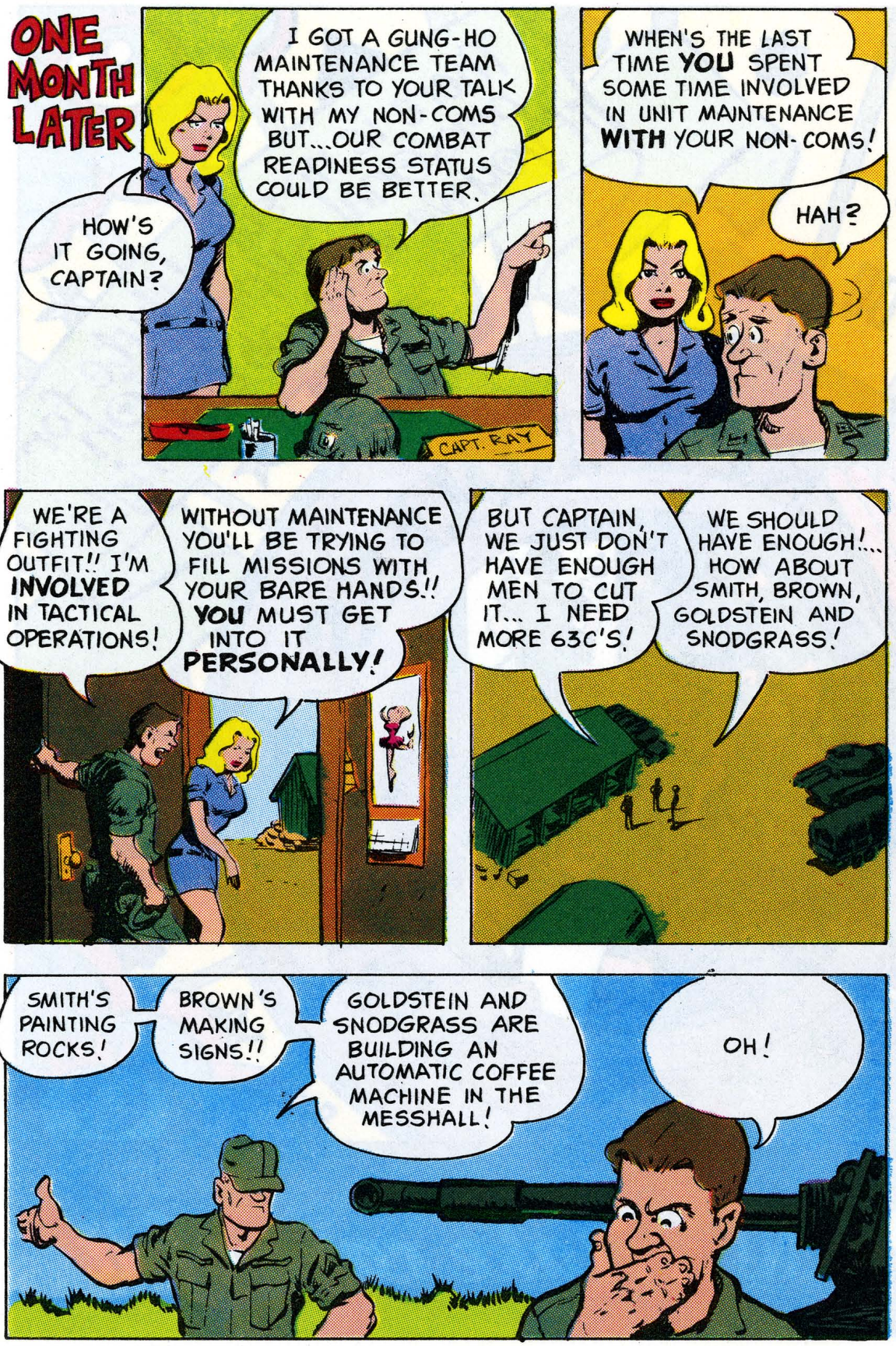
IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BUL

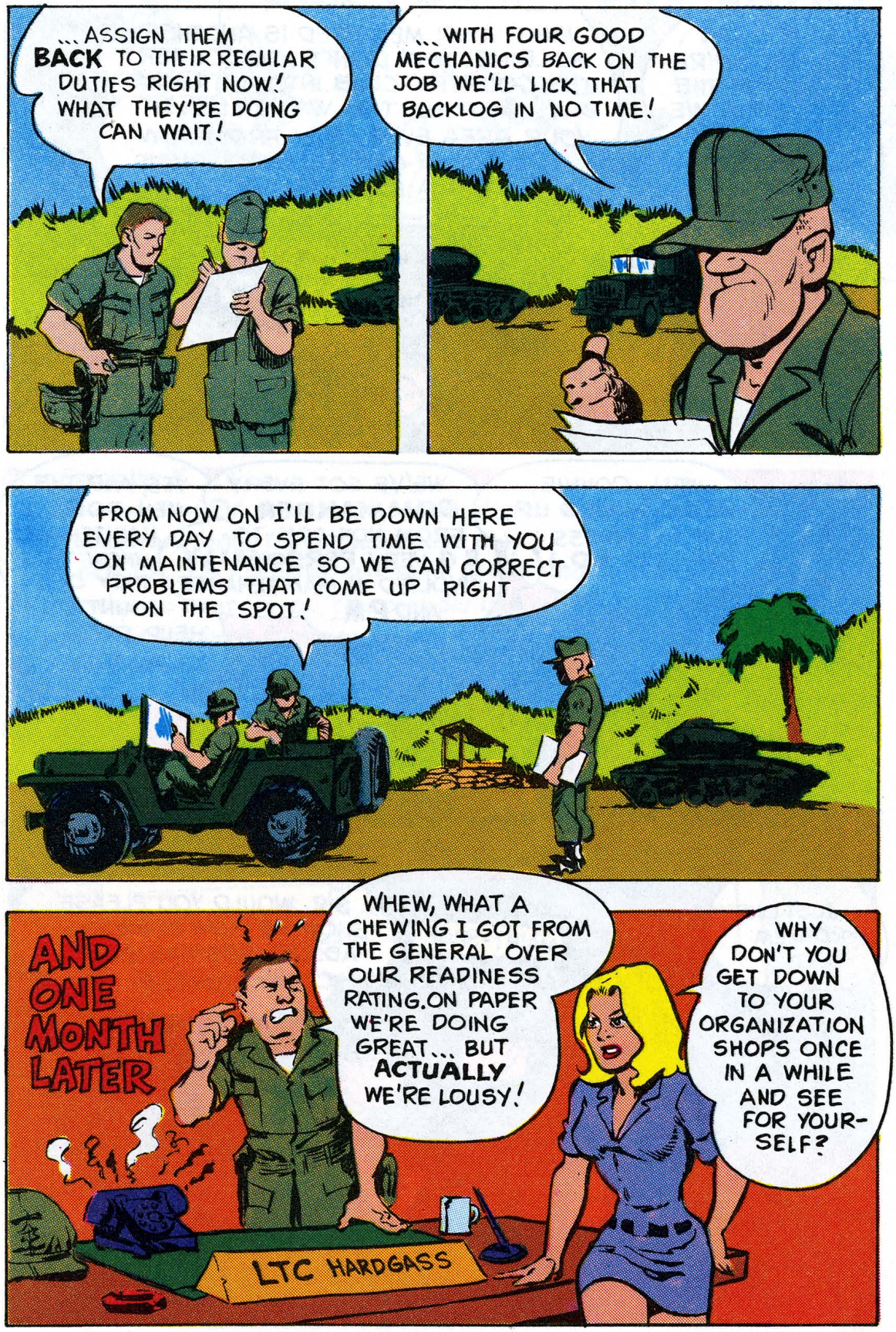
WE HAVE THE WORLD'S BEST EQUIPMENT... *Take care of it*

IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BULLETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.

QUIPMENT...*Take care of it*

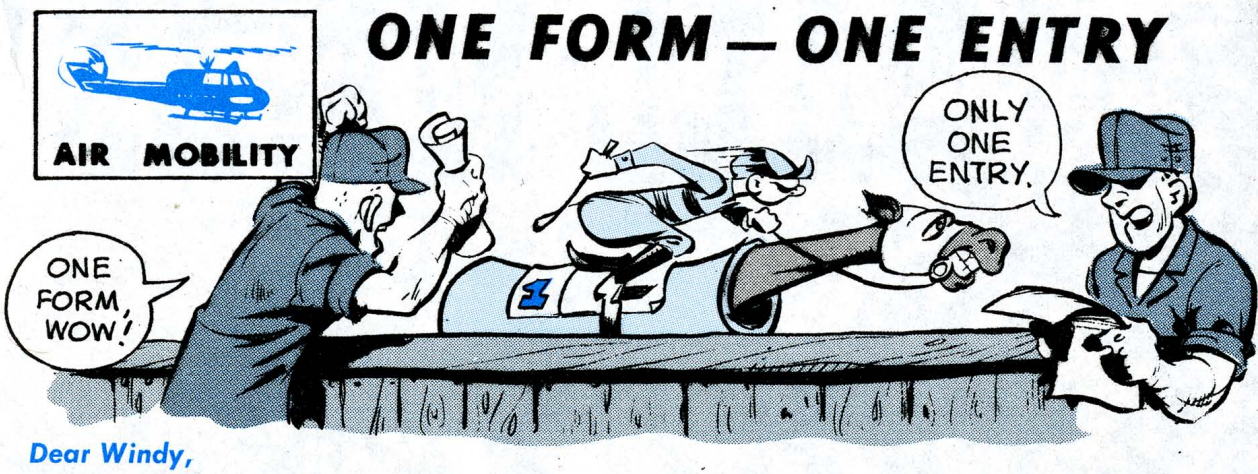
LETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.


ONE MONTH LATER
HOW'S IT GOING, CAPTAIN?
I GOT A GUNG-HO MAINTENANCE TEAM THANKS TO YOUR TALK WITH MY NON-COMS BUT...OUR COMBAT READINESS STATUS COULD BE BETTER.
CAPT. RAY
WHEN'S THE LAST TIME YOU SPENT SOME TIME INVOLVED IN UNIT MAINTENANCE WITH YOUR NON-COMS!
HAH?
WE'RE A FIGHTING OUTFIT!! I'M INVOLVED IN TACTICAL OPERATIONS!
WITHOUT MAINTENANCE YOU'LL BE TRYING TO FILL MISSIONS WITH YOUR BARE HANDS!! YOU MUST GET INTO IT PERSONALLY!
BUT CAPTAIN, WE JUST DON'T HAVE ENOUGH MEN TO CUT IT... I NEED MORE 63C'S!
WE SHOULD HAVE ENOUGH!... HOW ABOUT SMITH, BROWN, GOLDSTEIN AND SNODGRASS!
SMITH'S PAINTING ROCKS!
BROWN'S MAKING SIGNS!!
GOLDSTEIN AND SNODGRASS ARE BUILDING AN AUTOMATIC COFFEE MACHINE IN THE MESSHALL!
OH!


...ASSIGN THEM BACK TO THEIR REGULAR DUTIES RIGHT NOW! WHAT THEY'RE DOING CAN WAIT!
...WITH FOUR GOOD MECHANICS BACK ON THE JOB WE'LL LICK THAT BACKLOG IN NO TIME!
FROM NOW ON I'LL BE DOWN HERE EVERY DAY TO SPEND TIME WITH YOU ON MAINTENANCE SO WE CAN CORRECT PROBLEMS THAT COME UP RIGHT ON THE SPOT!
AND ONE MONTH LATER
WHEW, WHAT A CHEWING I GOT FROM THE GENERAL OVER OUR READINESS RATING. ON PAPER WE'RE DOING GREAT... BUT ACTUALLY WE'RE LOUSY!
WHY DON'T YOU GET DOWN TO YOUR ORGANIZATION SHOPS ONCE IN A WHILE AND SEE FOR YOURSELF?
LTC HARDGASS

AS YOU CAN SEE, SIR, WE'RE ON-TOP-OF-THE DEAL... BUT WE GOTTA WORK FLOW PROBLEM!
WHAT YOUR MEN NEED IS ANOTHER BUILDING. WHY DON'T YOU CONVERT THE COUNTRY CLUB INTO A TRUCK BAY... AND BY THE WAY I'LL VISIT YOUR AREA EVERY DAY FROM NOW ON SO WE CAN BE SURE PM IS DONE ON A REGULAR BASIS!
AND STILL LATER
WELL, CONNIE, WE'RE SHAPED UP... OUR READINESS RATING IS NO.1!
WE'VE GOT EVERY COMMANDER FROM NON-COM-TO-B G VERY PERSONALLY INVOLVED IN MAINTENANCE AND P.M.
YES, AND THE MEN DOING MAINTENANCE KNOW THAT THEY CAN COUNT ON HELP FROM COMMAND.
...JUST ONE PROBLEM LEFT...
MAINT-SHOP
SIR, WOULD YOU PLEASE SHOW ME HOW TO PROPERLY ADJUST THIS FAN BELT... I'M STUMPED!

ONE FORM — ONE ENTRY



Dear Windy,

Para 3g in TM 55-1520-221-ESC (17 Jul 69) says, in part, that we should fill out a worksheet for each subsystem and/or component.

Does this mean we have to complete a couple dozen DA Form 2404's on aircraft time-change components in order to come up with our HueyCobra ESC rating?

SP6 K. J. T.

Dear Specialist K. J. T.,

Nosir-e-e-e. One DA Form 2404 for the aircraft will do the trick. Para 3g requires additional forms for the subsystems only.

The new ESC TM's actually save some pencil pushing because you no longer list time-change components. You consider the components, tho, in your rating.

Eyeball the log book forms to get your readiness rating for the next 90 days.

Then, make a one-line entry on the 2404 for the aircraft. When you fill out the worksheet put the color rating in block 10 and the status symbol in column b. Enter the bird nomenclature in column c.

EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET
(TM 38-750)

1. ORGANIZATION		2. NOMENCLATURE AND MODEL	
C TROOP 8/1ST AIR CAV		ATTACK HELICOPTER	AH-1G

3. REGISTRATION/SERIAL/ISN	4a. MILES	4b. HOURS	c. ROUNDS FIRED	d. HOT STARTS	5. DATE	6. TYPE INSPECTION
68-17621	N/A	742	N/A	N/A	691029	ESC

7 APPLICABLE REFERENCE			
TM NUMBER	TM DATE	TM NUMBER	TM DATE
TM 55-1520-221-ESC	17JULY69		

INSTRUCTIONS—Perform each check listed in the TM applicable to the inspection performed. Following the sequence listed in pertinent TM, complete form as follows:
COLUMN a—Enter TM item number.
COLUMN b—Enter the applicable condition status symbol.
COLUMN c—Enter deficiencies and shortcomings.
COLUMN d—Show corrective action for deficiency or shortcoming listed in Column c.
COLUMN e—Individual ascertaining completed corrective action initial in this column.

ALL INSPECTIONS AND EQUIPMENT CONDITIONS RECORDED ON THIS FORM HAVE BEEN DETERMINED IN ACCORDANCE WITH DIAGNOSTIC PROCEDURES AND STANDARDS IN THE TM CITED HEREON.

8a. SIGNATURE (Person(s) performing inspection)	8b. TIME	9a. SIGNATURE (Maintenance Supervisor)	9b. TIME	10. MANHOURS REQUIRED

TM ITEM NO. a	STATUS b	DEFICIENCIES AND SHORTCOMINGS c	CORRECTIVE ACTION d	INITIAL WHEN CORRECTED e
	GREEN	AIRCRAFT STATUS		

Fill out the worksheets for the avionics and armament subsystems and file them in back of the bird worksheet.

'Course, the end item rating goes across the bottom of the bird's 2404.

Windy

UH-1, AH-1G AVAILABLE?

"CALL ME, ANY

Face it—your Huey or HueyCobra can be a temperamental lady when rotating, twisting, turning and vibrating parts get out of sorts.

UH-1, AH-1G AVAILABLE?

"CALL ME, ANY TIME"

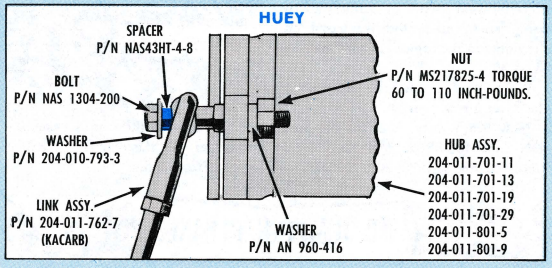
Face it—your Huey or HueyCobra can be a temperamental lady when rotating, twisting, turning and vibrating parts get out of sorts.

STACKED RIGHT?

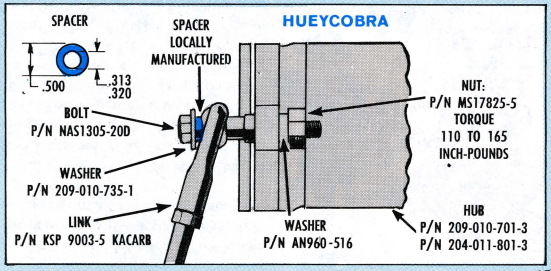
Take the tail rotor pitch change link stack-up with the new Kacarb bearing, for example.

With full right pedal and a partial flap of the tail rotor hub and blade, the inboard part of the bearing can contact the OD of the bolt washer—preventing the hub from hitting the static stop.

To prevent bearing damage, you can put spacer, P/N NAS43HT-4-8, between the bearing and the bolt washer on your Huey. Be sure you put the spacer side of the bearing inner race toward the threaded end of the bolt.



On the HueyCobra, make the spacer from washer, AN 960-C416, by opening up the ID to .013-.320 inch. Assembly is the same as for the Huey.



MORE

TIME" STACKED RIGHT?

Take the tail rotor pitch change link stack-up with the new Kacarb bearing, for example.

With full right pedal and a partial flap of the tail rotor hub and blade, the inboard part of the bearing can contact the OD of the bolt washer—preventing the hub from hitting the static stop.

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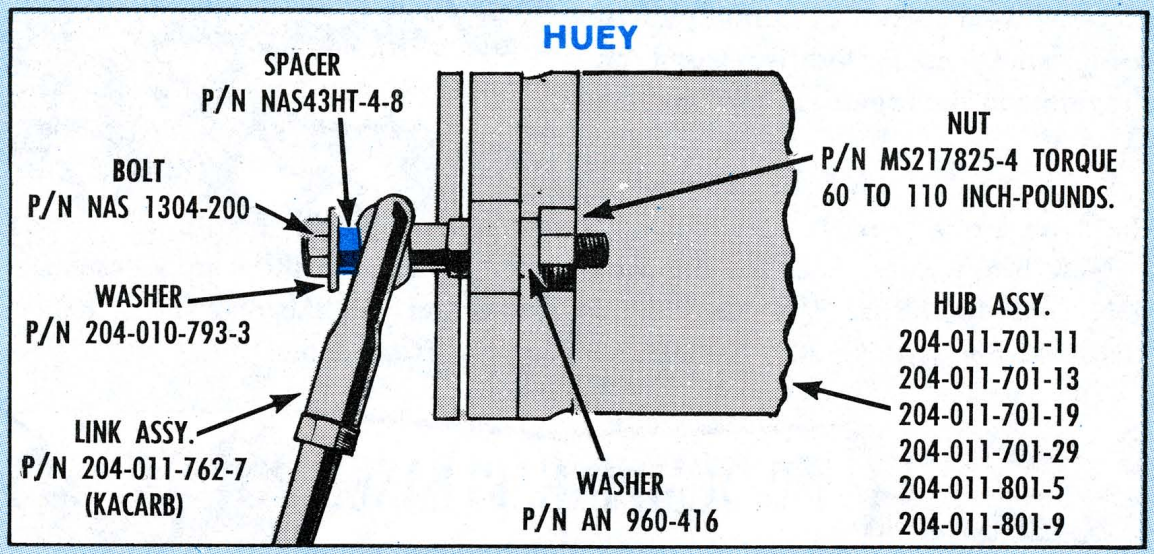

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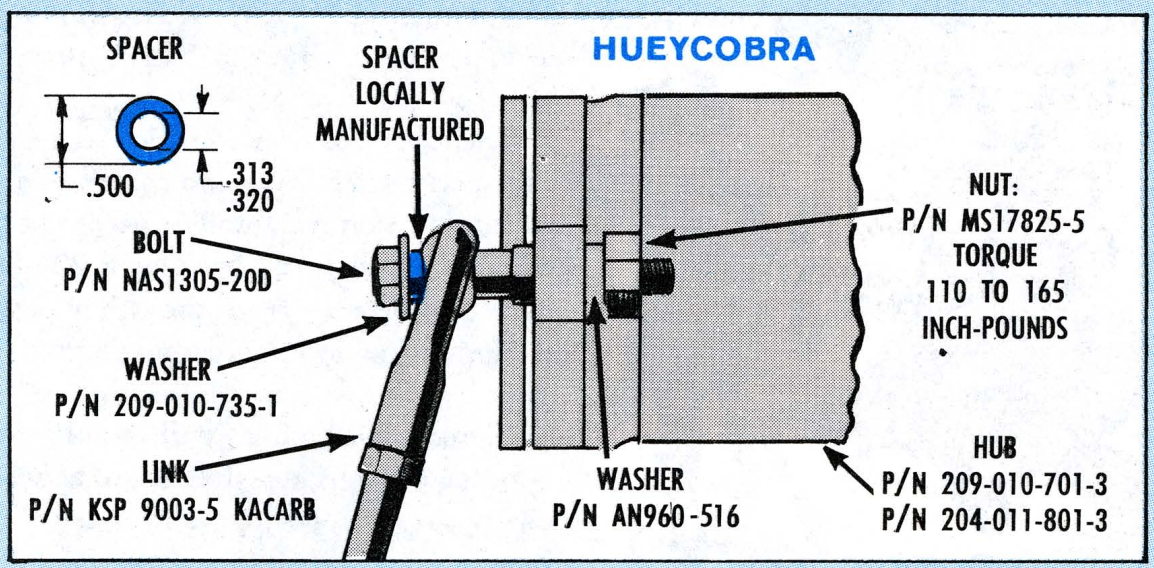


PS MORE

BABY NEED SHOES?

The purpose of the skid shoes on your bird is to take the high abrasion during landings and save the skids. Shoes come cheaper than skids. So, eye the shoes for cracks, loose hardware and wear.

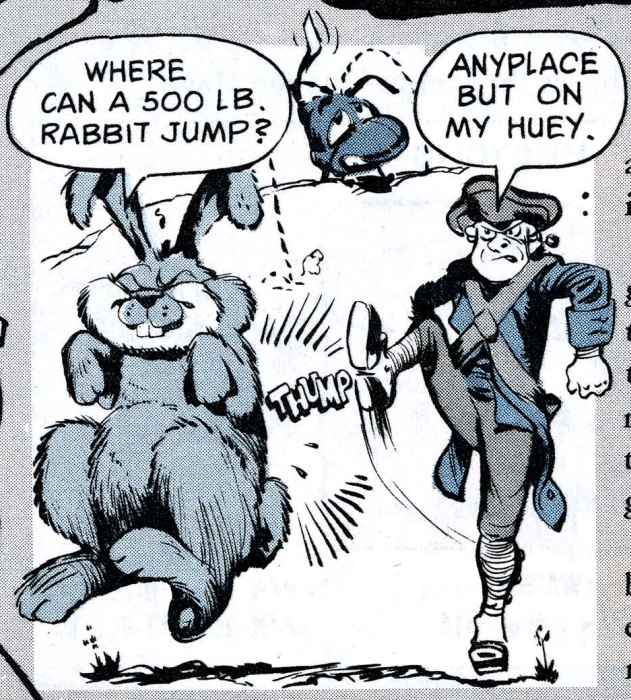
The bird can be jacked up to get a look at the shoes. Easier, still, have your favorite throttle jockey hover the bird as you make your check.

You can also quickly measure for excessive skid spread by using a measuring stick, made locally, based on the limits in the organizational maintenance pub.

Before you get a hole in badly worn shoes get a new pair.

New heavy duty shoes for the HueyCobra are now in the supply system. FSN 1630-462-8865, P/N 209-050-004-3, will get you the rear shoes. FSN 1630-462-8862, P/N 209-050-004-5, is for the front shoes.

NO JUMPING, PLEASE?



Watch your step when moving around on your Huey or HueyCobra — it's not built like a tank.

The cabin roof, transmission and engine decks are honeycomb construction to cut down on weight. The decks can't take Connie's spiked heels or a 200-lb mechanic leaping from the cabin roof to the engine deck. Something's got to give.

Constant jumping will result in bonding separation — lots of sweat and elbow grease for support to make the repairs.

Another point to ponder. Never put a jack on the engine deck to raise the engine during a mount or bearing change or you'll crush the honeycomb, for real.

Save the deck. Use the engine hoist.

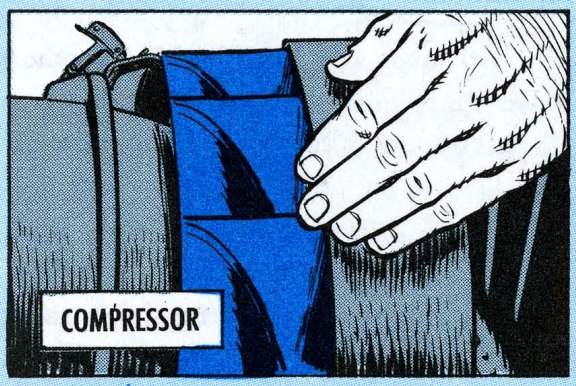
Pull PM on the decks by checking for bonding separation. Early repairs save moola.

Tap the bonded areas every few inches with a key. A bonding void will give you a dull, soft click sound. A sharp, hard sound means the honeycomb is OK.

USE COVERS

The T-53 engine filter particle separator-and-screen does a first-rate job of preventing FOD in flight. Working on the bird with those parts off is something else again.

Sure, the parts come off on an engine cleaning, for example. But leave the separator and screen in place if at all possible so dropped hardware won't get sucked into the compressor.



Also, keep track of your tools so you don't leave 'em behind.

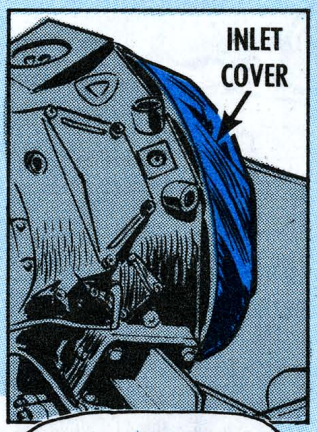
If the engine has to be run with the upper half of the separator off be sure you take the collector boxes and sponges out of the lower half, or the engine will swallow them (ugh!!).

Eye the lower half of the separator for safety wire, cotter pins and the like when you put the separator back together.

When you do work over the engine on the rotor head and transmission, with the separator off, play it cool. Take time to get a suitable cover over the engine inlet so no clipped safety wire or other debris lands in the engine.

Support ships an engine to you with an inlet cover that'll do the job.

To head off FOD after maintenance is completed eye the engine inlet area. A little prepping will keep your baby at her best.



PS MORE

LUBE SWASHPLATE

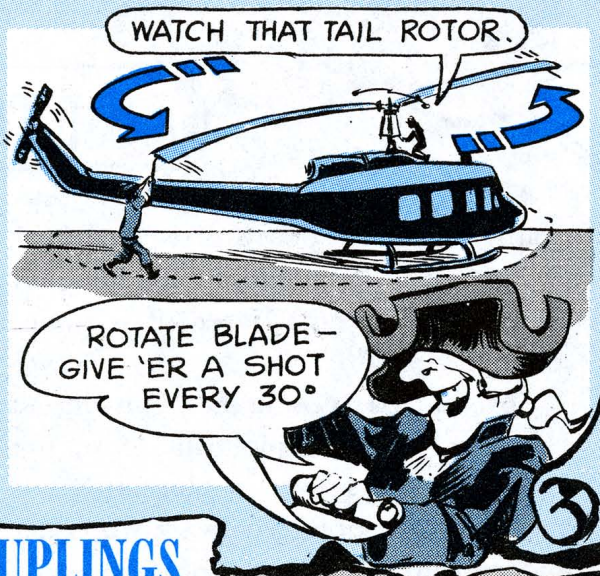
Pulling complete PM inspections will help keep your baby off the "grounded" list for unscheduled maintenance.

Make sure you eye the lube chart in the organizational maintenance pub. If rotating parts don't get greased they're going to fail . . . autorotation, or worse!!

Take the swashplate, for example. The main reason for swashplate bearing failures is lack of grease.

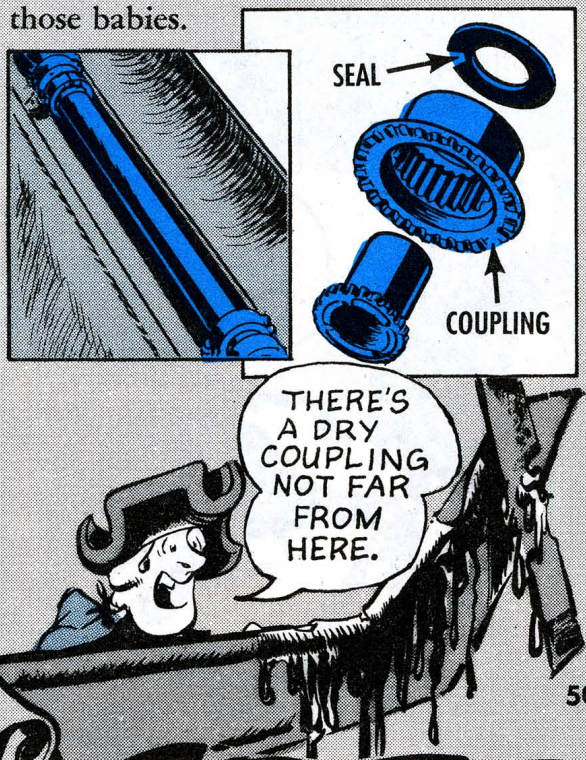
Unusual operating conditions, such as dust and high gross weights, now call for you to lube the bearings every 25 hours.

To do a thorough job, have your buddy rotate the mast by walking the blades thru while you shoot the works at 30-degree intervals around the swashplate. That'll save you the trouble of disconnecting the drive links and re-torquing the hardware.



EYE COUPLINGS

The tail rotor drive shafts on your baby turn over at a high RPM. So, when one of the flexible couplings along the drive shaft goes dry, tail rotor control is lost in a matter of minutes. Which is a pretty good reason for focusing on those babies.



If a coupling seal is not seated right grease will be slung from the coupling —you can spot it on the drive shaft cover. A dry coupling's not far off.

The seal may even work out of position as the hours are built up on your bird. So, during your PMP take out the shafts.

Gently bend the female coupling down while turning the coupling. Any seal cuts, cracks or poor seating means some parts need changing.

When you put in a new seal make sure you don't cut or nick it. Be sure the seal is seated right.

The lube chart calls for packing the coupling splines with grease every 500 hours. If you're operating in boonieland where the dust flies thick and fast you've got unusual conditions. Repacking the coupling every 300 hours would be more like it.

HANGER BEARINGS OK?

The drive shaft hanger bearings are permanently greased—no sweat. But they do wear out.

If you get too much bearing axial play a drive shaft may be out of balance.

Eye the shaft to see that the right number of balance weights are present and accounted for.

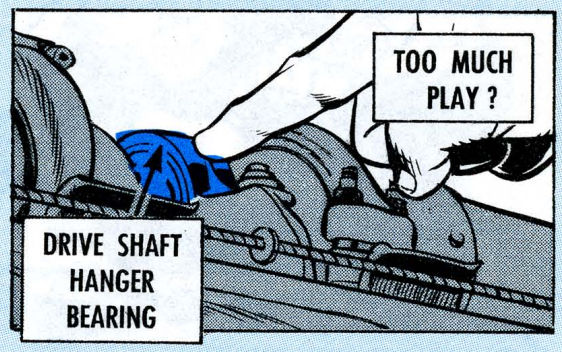
If the drive shaft has more than a single empty bonding imprint next to the last balance weight, eye the last weight for this vibro-etched info:

BALANCED (date) ARADMAC

Drive shafts balanced by ARADMAC are serviceable. Other shafts which have more than one weight missing have to be removed due to missing weights.

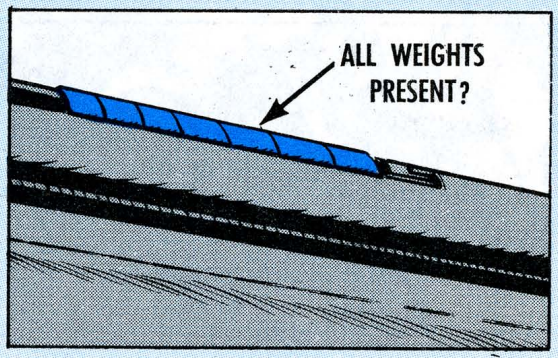
Have a look-see at the 42 and 90-degree gearbox mounts to make sure that mounting holes are not elongated. That condition could mean a gearbox is loose and is transmitting vibrations along the shaft.

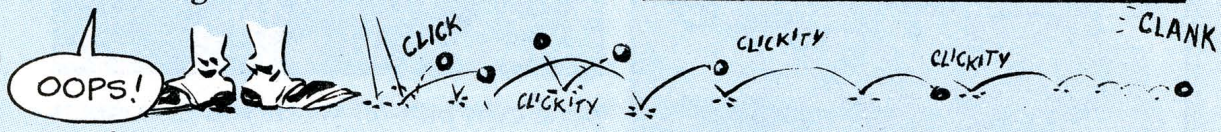
Make sure all hanger bearing hardware is tight.



Focus on the single-row ball bearing by disconnecting the drive shafts from each side of the hanger.

Slowly rotate the coupling. If the rolling elements come to a definite stop, then jump, and you notice an increase in roughness, the bearing has had it. Put in a new one.





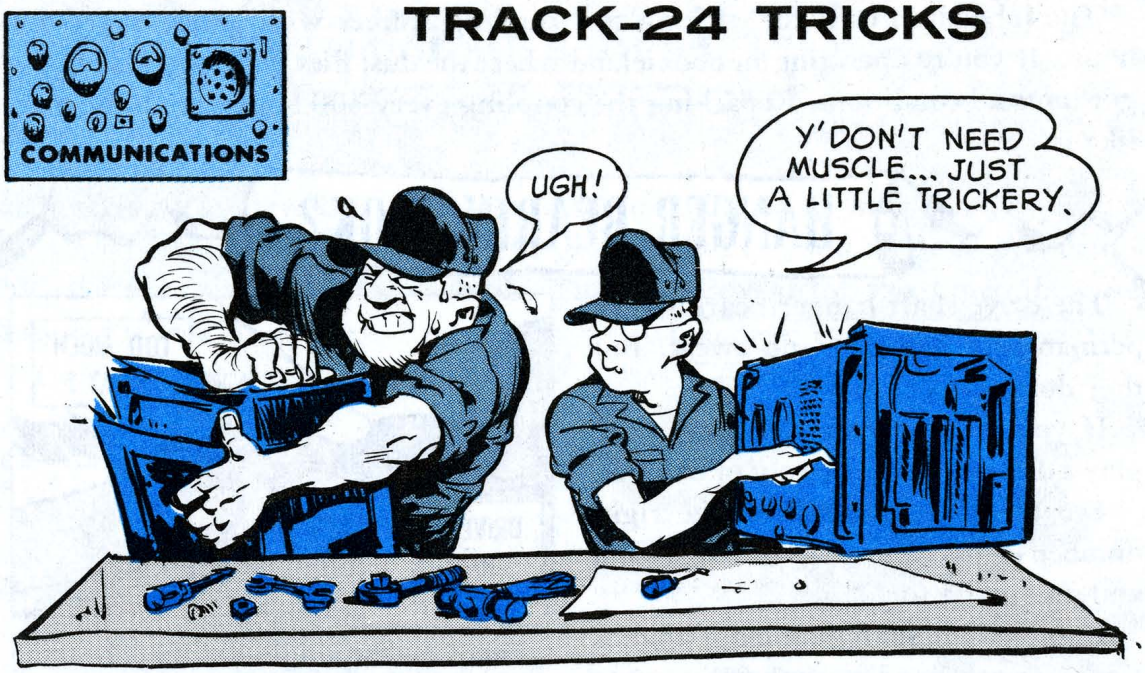
If a suspect bearing is removed from the hanger you can make the rolling check by holding the inner race and slowly rotating the outer race.

You'll get some bearing roughness after a couple of hundred hours of operation on bearings. This roughness is caused by the lubricant. The bearing should be OK.

Yessir-e-e-e, keep up with the latest and do your PM. It's a combination that will keep your baby on the "available" list.

P.S END

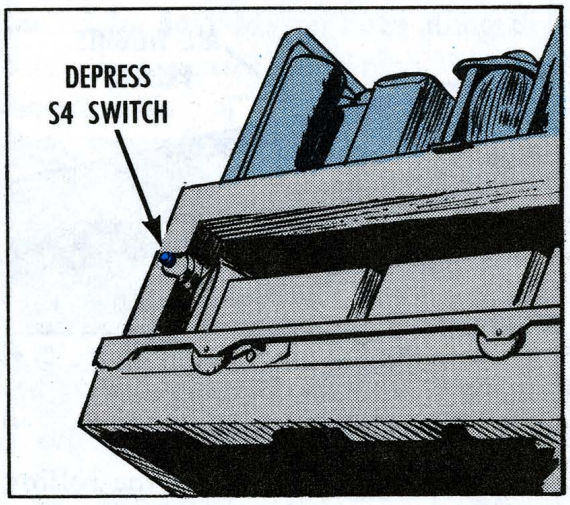
TRACK-24 TRICKS



AN/TRC-24 radio set "little things" can build up to big headaches quick-like if you let 'em get a start on you.

Like switches, f'rinstance.

The S4 interlock switch of the PP-685 power and the S110 interlock switch of the T-302 transmitter need a



gentle shove occasionally to keep 'em out of trouble.

Like, when you're putting either component back in the rack, depress the interlock switches until they clear the frame. Otherwise, you can break 'em . . . and put the component out of business.

Another thing to watch for: Age gets to the plate caps of the V1 and V2 (JAN Type 836) tubes in the PP-685, and the

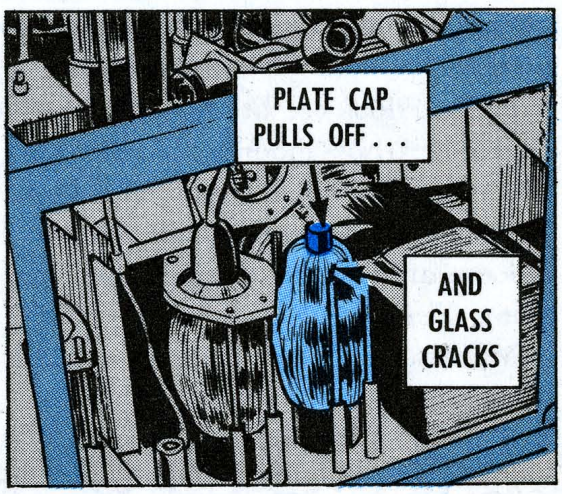


plate caps pull off when you disconnect them. Either that or the glass of the tube cracks at the base of the plate cap. A quick look when you service the tubes can keep you operating.

Final point: You never ground the K1 relay to the chassis—it'll burn out parts.

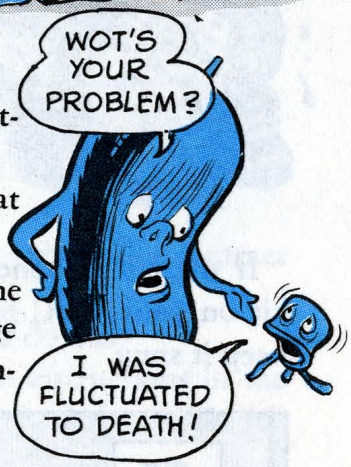
TRANSISTORS CAN BLO-O-O-W

Speedy action; steady performance.

These're a coupla ways your radio set transistors outdistance the old vacuum tube.

But there's one big point about these dainty darlings that you'll need to watch. They can't take much over-voltage.

You get fluctuation when you start or stop your engine while the radio set is turned on. So, shun these power-surge starts and stops and you'll save your radio set a heap o' downtime due to damaged transistors.



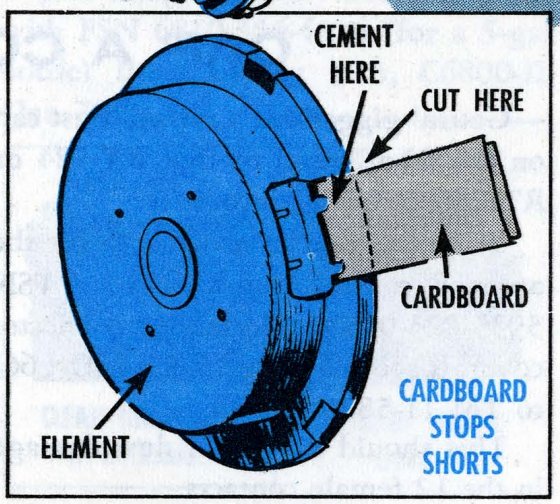
HANDSET HANG UP

A jar, a drop or a bang can shake the contacts of the receiver and transmitter elements loose in your H-189 handset . . . and short 'em out.

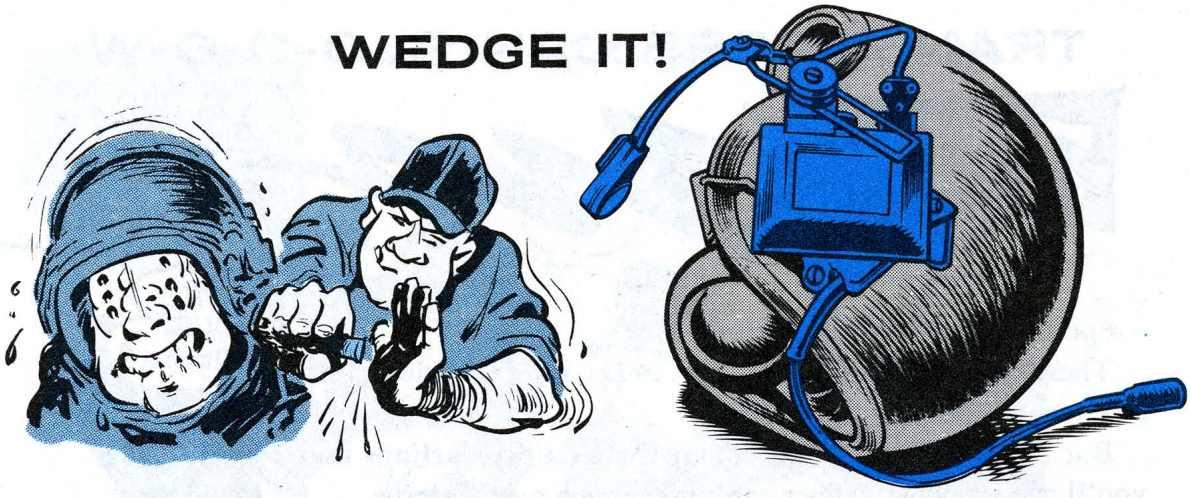
So, if you can't get the word out . . . or in . . . get your organizational repairman to pull a simple fix.

Remove either or both elements, push the contacts toward the inside . . . and slip a doubled piece of thin cardboard (like an index file card) between the metal lip of the element and the base of the contacts.

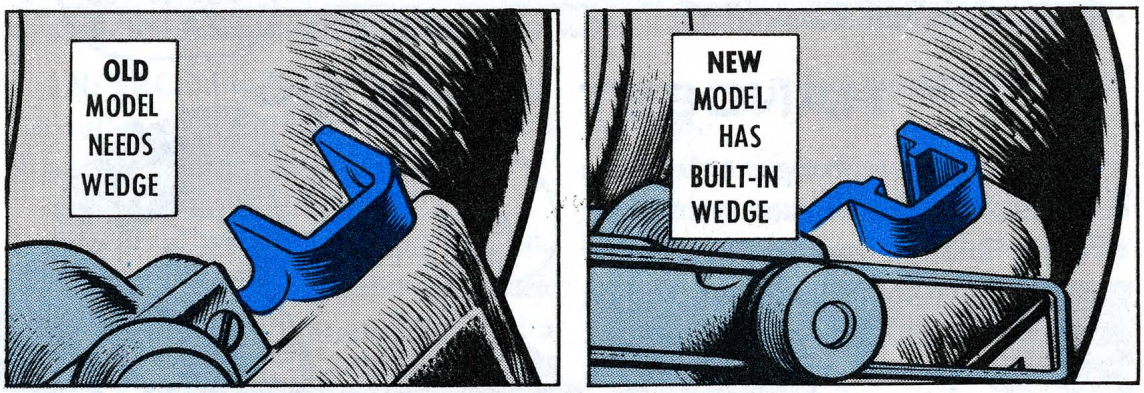
Double the cardboard so it's about an inch or so long . . . to give you enough grip to maneuver it. Cut it to fit the groove over the base contacts. When you get it in place, snip the edges flush with the outside ring of the element. Then, dab some Epoxy (FSN 8040-847-6387) around the cardboard and the contact bases to keep the cardboard in place.



WEDGE IT!



If the microphone plug of the early-model MK-1039/G headset- microphone kit on your CVC helmet is loose, chances are you need a special wedge kit to keep it snug.



The wedge kit is necessary if the plug's loose where it connects with the SA-1552/G switch assembly.

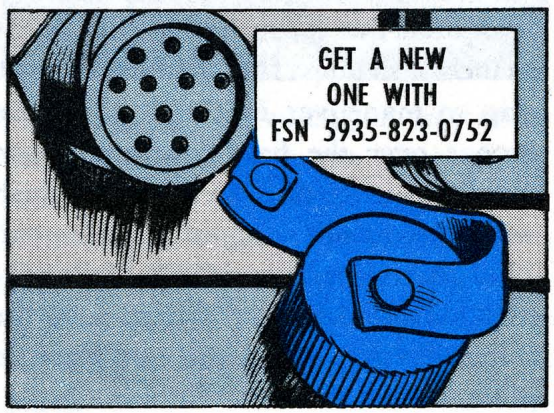
So, turn the headset-microphone in to your support so it can go to your mission depot for application of the wedge kit.

CAP A CONNECTOR

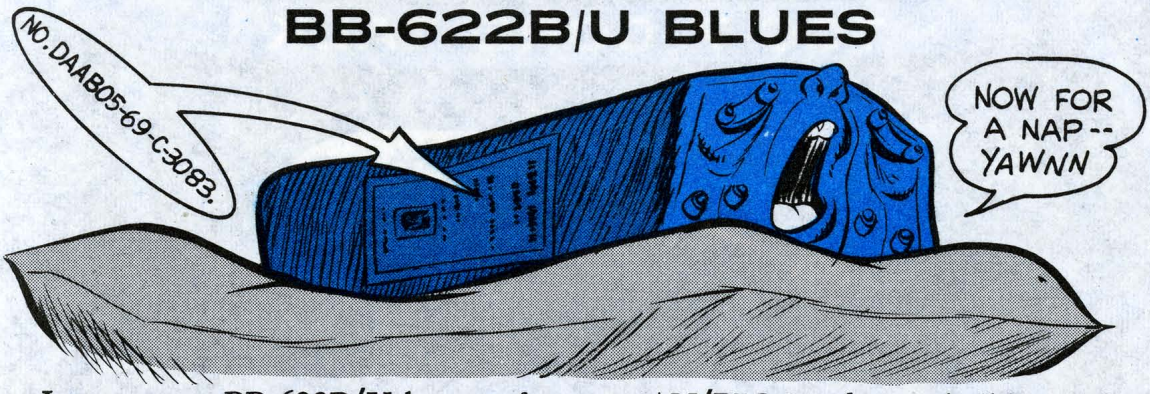
Gettin' gigged for a missin' dust cap on the front panel of that RT-524 or RT-246 receiver-transmitter?

You can go after a new cap for the antenna control connector with FSN 5935-823-0752, electrical connector cover. It's listed on Pg 11, Ch 5 (Oct 66) to TM 11-5820-401-20.

This should cut down dust damage in the 12 female contacts.



BB-622B/U BLUES



Is your new BB-622B/U battery for your AN/PPS-5 radar set balking at its first charge?

Unwind. It's following the pattern of all the little B's bought under contract DAAB05-69-C-3083.

So-o-o-o, look for that contract number on the battery and do this:

Lay it on its long side about an hour after you fill it (like instructions in the filler kit tell you). Keep the cotton wadding in the cell vent holes while it's lying down.

Let the battery soak in that position for at least 48 hours. Set the battery upright, remove the cotton wadding and tighten vent valves to 4 in-lbs with a torque screwdriver, which is in your TK-90 tool kit.

Then, it should accept its minimum 8-hr charge.

DISTILLED WATER? — WELL...

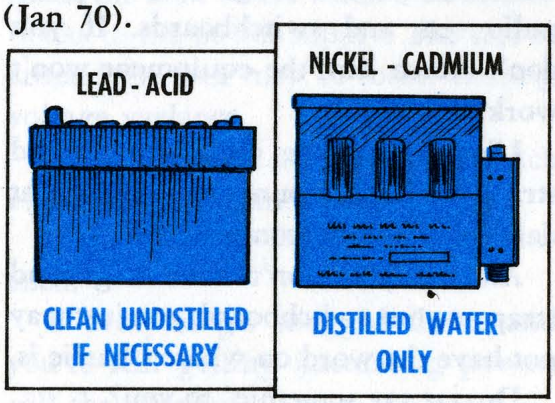
Baby your batteries, man . . . baby 'em with scads of TLC, pounds of PM and distilled water.

'Course, nobody's gonna say you can't use clean rainwater or drinking water in lead-acid batteries when you need to — but, regardless, stick with distilled water when you can get it. It's top choice.

If you're usin' nickel-cadmium or silver-zinc batteries, use distilled water only for the cells. No substitutes. Reason is, the slightest touch of impurity in the water can taint the nickel-cadmium or silver-zinc cells.

If you're out of distilled water, route your batteries to support for the pure H_2O.

You can go after the distilled water, with FSN 6810-356-4936 (for a 5-gal bottle) listed on Pg 3.13, C6800-IL (Jan 70).



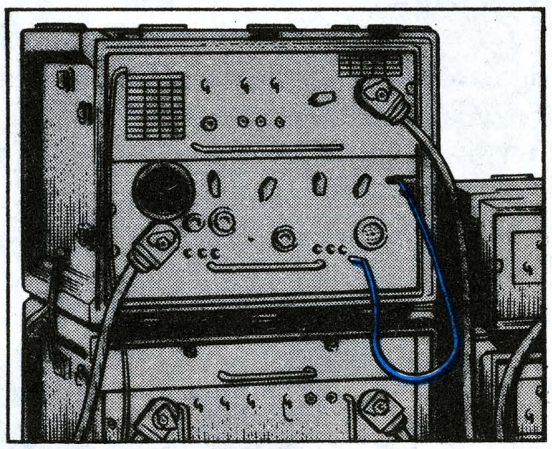
TCC-7 CORD TALK

Cords on the AN/TCC-7 telephone terminal stick out in a shelter like super spaghetti, waiting to make you part of the sauce.

Which means they get snagged, dragged, hauled, mauled, weighted and baited to the point of breaking. Or, at least, fraying.

Which means that occasionally, while dodging the cables, eyeball them to be sure they're still in good enough condition to do their job. If they're frayed or broken, get 'em replaced.

While you're still wired, think about the measure cord and plug on the TS-760. When you're testing components like the AM-707 and TA-228 with it, push the plug straight in and pull it straight out. Keeps it from bending.



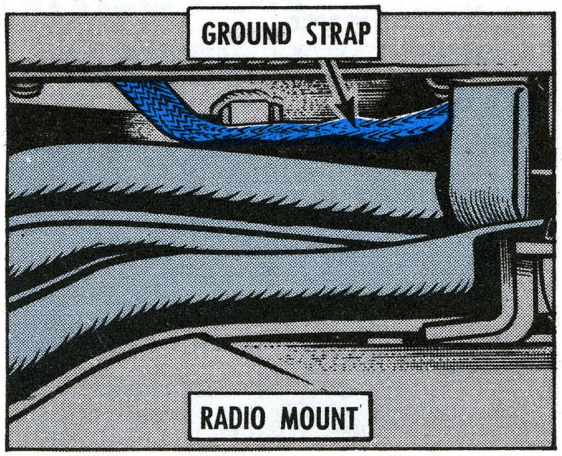
GROUND STRAP SLAP

Funny thing about ground straps on radio sets and switchboards. If you don't attach 'em, the equipment won't work so good.

Like, f'rinstance, lack of ground straps on radio mounts can downright damage the radio components.

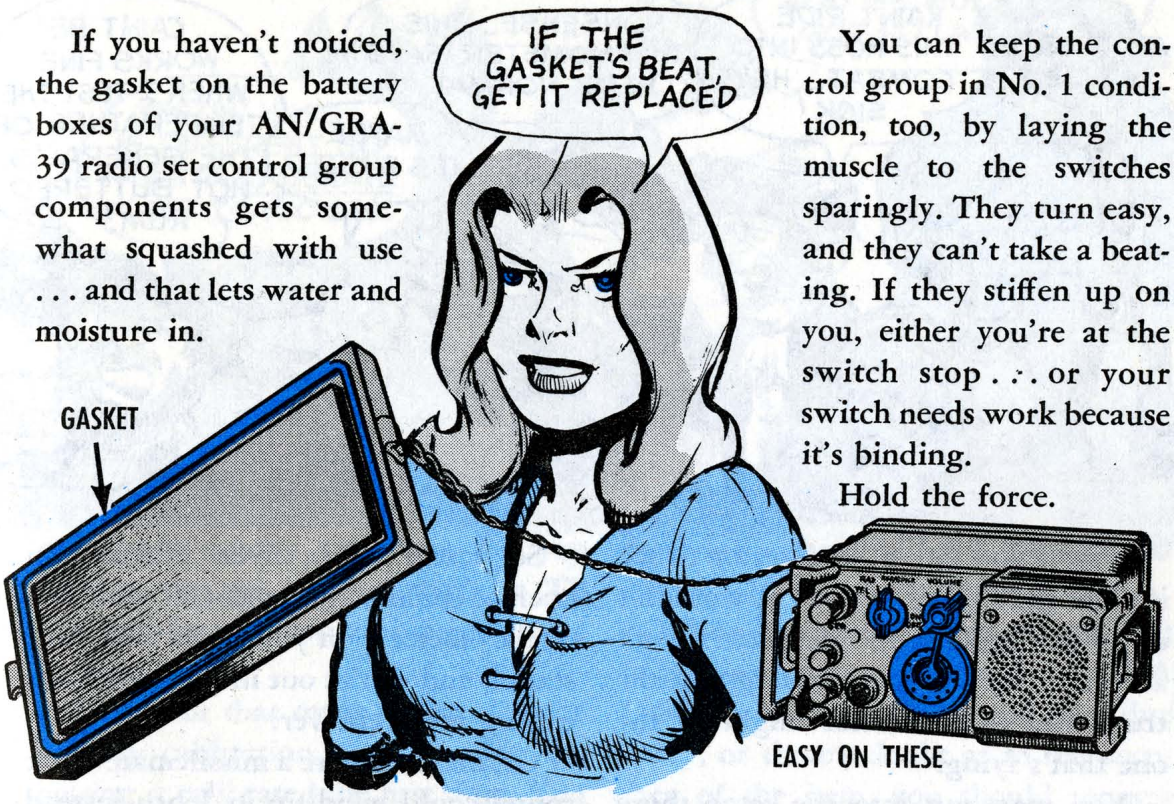
And, if you don't have a ground strap on your switchboard, you just may not have the word on where Charlie is.

Duzzat say somethin' to you?



GRA-39. SAVERS

If you haven't noticed, the gasket on the battery boxes of your AN/GRA-39 radio set control group components gets somewhat squashed with use . . . and that lets water and moisture in.

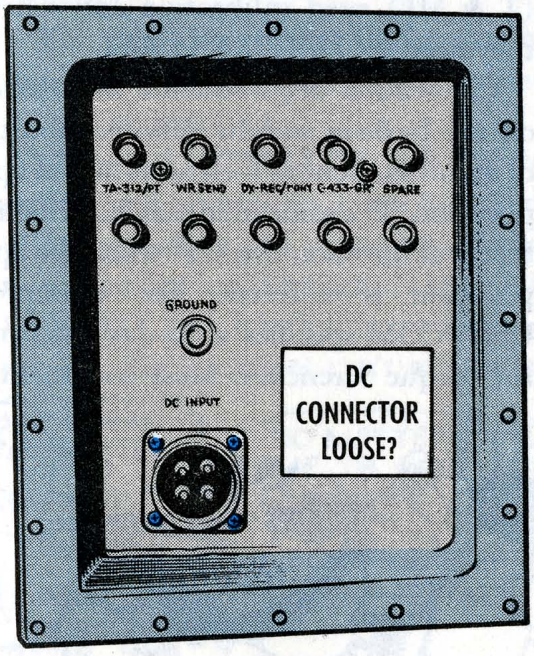


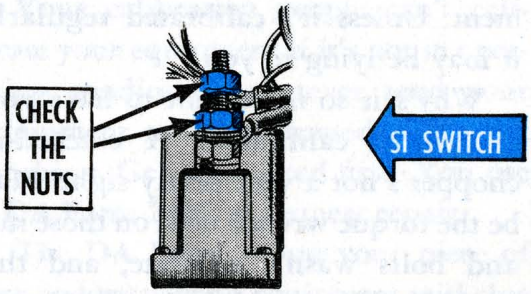
You can keep the control group in No. 1 condition, too, by laying the muscle to the switches sparingly. They turn easy, and they can't take a beating. If they stiffen up on you, either you're at the switch stop . . . or your switch needs work because it's binding.

Hold the force.

GRC-142 RTT DC

You say the DC voltage to your AN/GRC-142 radio teletypewriter set is fluctuating?





Before you call in the repairman check the area where the DC connector hooks to the power supply. The screws around the jack may be loose, causing voltage variance.

Also check the 2 nuts on the S1 switch at the power entrance panel.

If the nuts are loose, get 'em tightened.

If everything's snugged down and you're still getting fluctuating power, call the repairman.

CALIBRATION . . . YOUR EQUIPMENT'S

How'd you like a lie detector to see if your gal's lying to you? It wouldn't do much good if the detector wasn't accurate. She might be telling you the truth and your detector might be the one that's lying.

You may run into the same thing with your test and measuring equipment. Unless it's calibrated regularly, it may be lying to you.

Why's it so important to have your equipment calibrated? A cracked-up chopper's not a very pretty sight. Maybe the torque wrench used on those nuts and bolts wasn't accurate, and they could have been under-torqued or over-torqued.

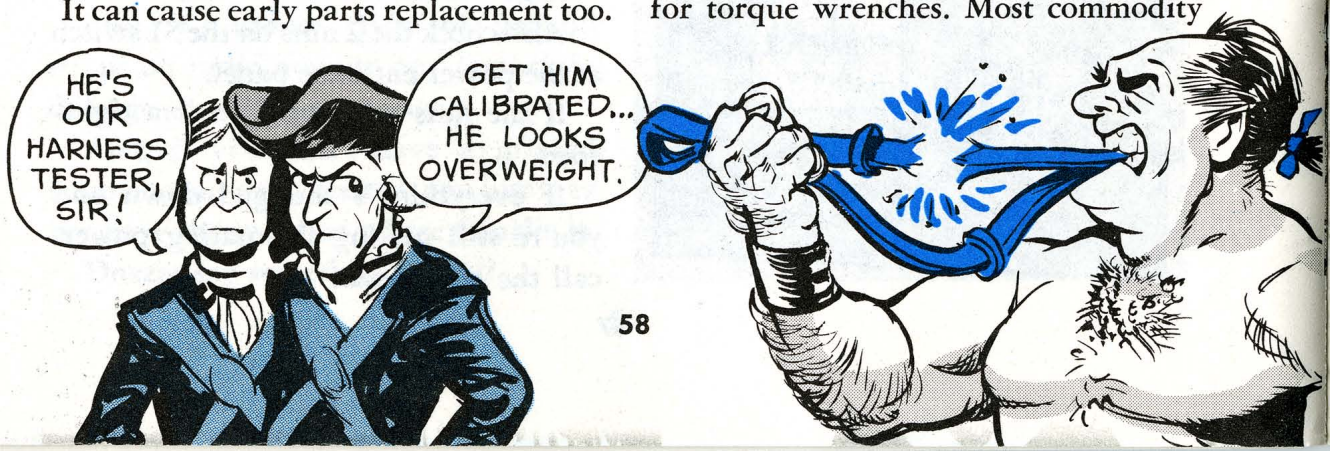
Or, the control cables may not have had the right tension because of a faulty tensiometer and the pulley was worn. It can cause early parts replacement too.

So you're not a flyer. Maybe you operate commo equipment. If your frequency meter is off you might miss your station and you're out in the boondocks calling for firepower.

Or, maybe you're a missileman. Your round could wind up in Jebru instead of on target if your instrument's lying to you.

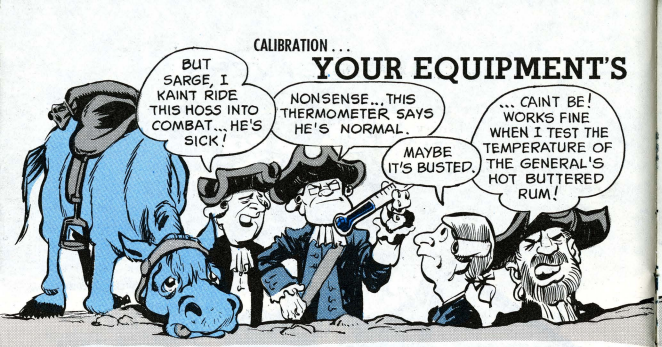
TB 750-236 (Oct 69) tells you what items of test and measuring equipment (T & ME) need calibration and when they need it.

Calibration requirements are based on the built-in stability and reliability of an instrument as well as its actual application. The same item may have a different calibration interval when the application is different. For example, USAVCOM specifies a 90-day interval for torque wrenches. Most commodity



CALIBRATION . . .

YOUR EQUIPMENT'S LIE DETECTOR



How'd you like a lie detector to see if your gal's lying to you? It wouldn't do much good if the detector wasn't accurate. She might be telling you the truth and your detector might be the one that's lying.

You may run into the same thing with your test and measuring equipment. Unless it's calibrated regularly, it may be lying to you.

Why's it so important to have your equipment calibrated? A cracked-up chopper's not a very pretty sight. Maybe the torque wrench used on those nuts and bolts wasn't accurate, and they could have been under-torqued or over-torqued.

Or, the control cables may not have had the right tension because of a faulty tensiometer and the pulley was worn. It can cause early parts replacement too.

So you're not a flyer. Maybe you operate commo equipment. If your frequency meter is off you might miss your station and you're out in the boondocks calling for firepower.

Or, maybe you're a missileman. Your round could wind up in Jebru instead of on target if your instrument's lying to you.

TB 750-236 (Oct 69) tells you what items of test and measuring equipment (T & ME) need calibration and when they need it.

Calibration requirements are based on the built-in stability and reliability of an instrument as well as its actual application. The same item may have a different calibration interval when the application is different. For example, USAVCOM specifies a 90-day interval for torque wrenches. Most commodity commands specify 180 days. So, you have to use the interval that's in TB 750-236 for the test equipment you're calibrating.

The outfit that owns the equipment needing calibration is responsible for getting it calibrated the first time. You submit a calibration request on DA Form 2416. And your outfit is also responsible for making sure the item's available when it's scheduled for recalibration.

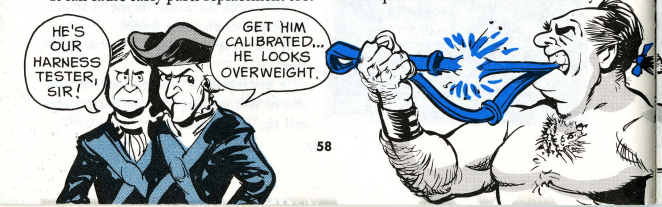
You can also request calibration of your test equipment any time you think it's not accurate.

Chapter 6 of TM 38-750 tells you the records and procedures to use for scheduling, recording and reporting calibration. You can use DA Form 2416 or DD Form 314 for scheduling calibration service. Since services can't always be done on the date scheduled, TB 750-236 allows a 10 percent variance in time.

When you get a piece of test and measuring equipment that has no DA Label 80 on it, or it's beyond the "due date", or there's doubt as to the accuracy of the item, you should request that it be calibrated.

Your calibration people can't calibrate your equipment if it's not in operating condition. So, never send your equipment to be calibrated if it's not working. Get it repaired first. You use a DA Form 2407 to request repair.

The DA Label 80 on your piece of test and measuring equipment will clue you as to when the equipment's due for the next calibration. It tells when the calibration was done last and when the next one's due.



LIE DETECTOR

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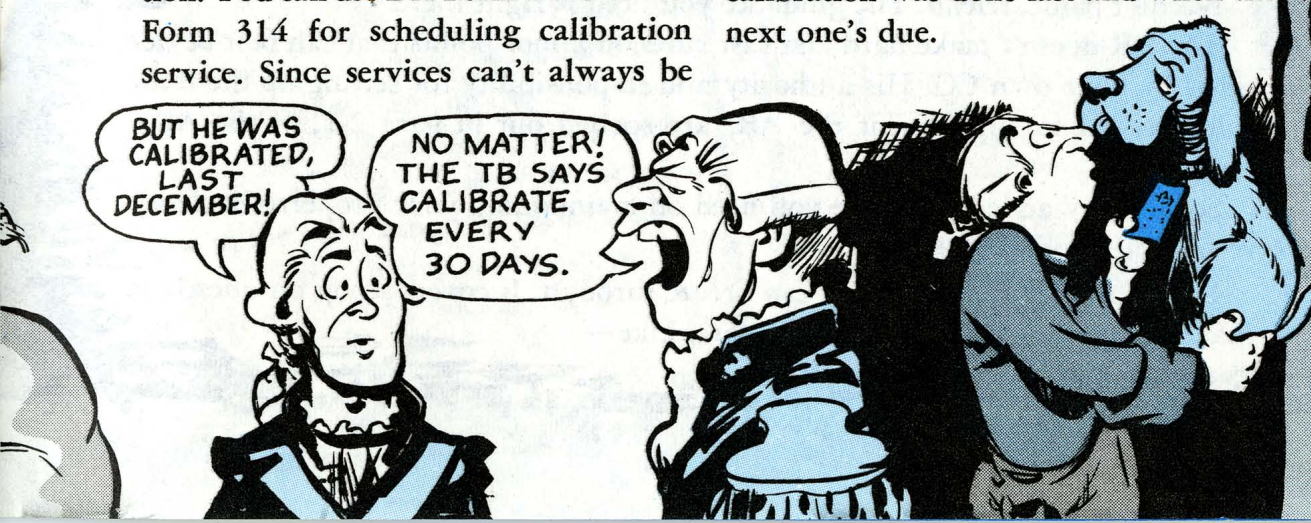
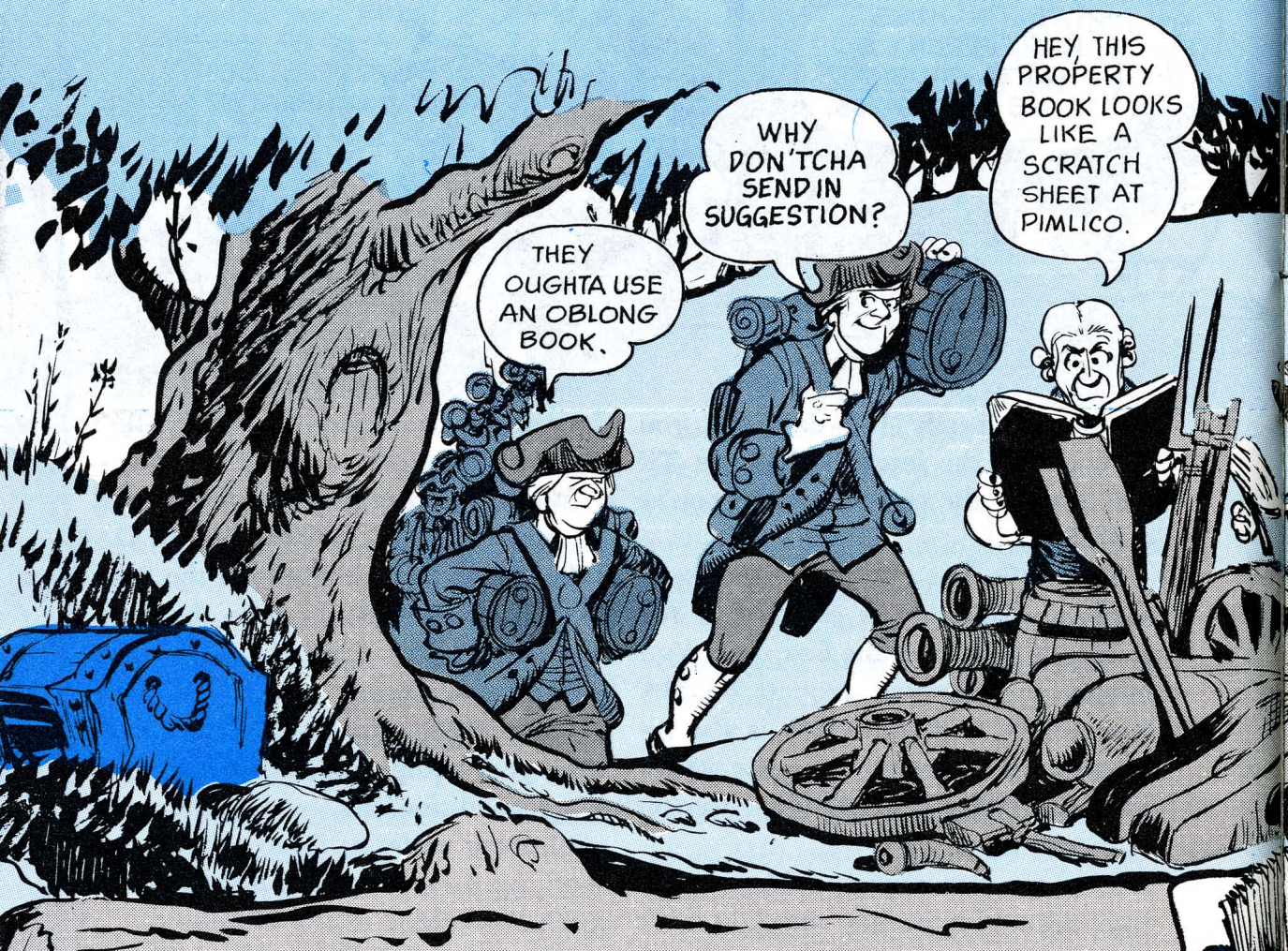


POINTERS ON . . .

PROPERTY BOOK



You say you know, AR 735-35 is the law on setting up and maintaining the property book . . . but, the pub leaves you high and dry on some important points on property book care. Furthermore, those very points are handled different-like in different places you've been.

Needn't panic, friend. The guidance you need is right there.

The AR doesn't make hard and fast rules on minor points that can best be decided by your own CO. His authority and responsibility for setting up the local rules needed to supplement the AR, are spelled out in para 2-1, of the AR's Ch 1.

So, for any added guidance you need on maintaining your property book try your local supply SOP.

Here's an easy check-list you can breeze through. It covers scoop on questions that are repeaters on property book care. Like—

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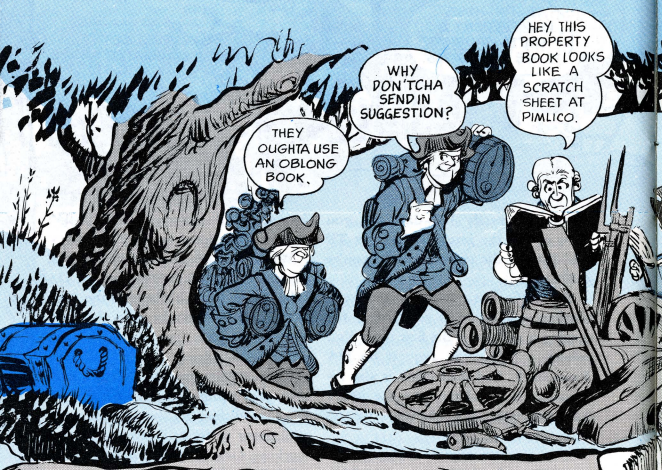
PROPERTY BOOK LAYOUT



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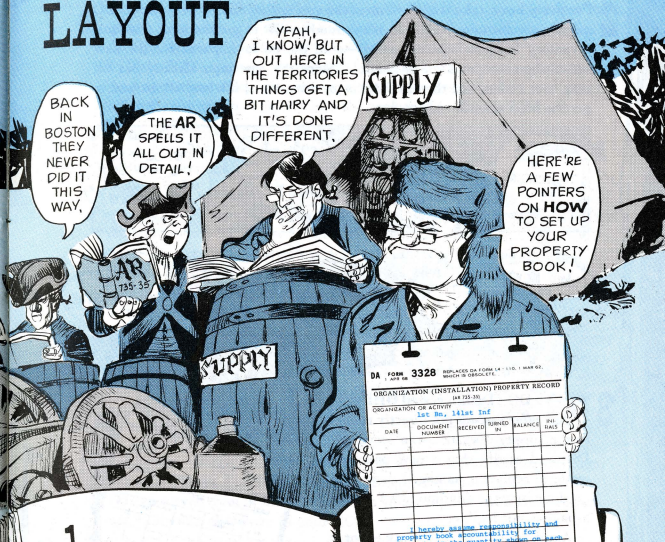


1

On making out certificates—The answer is yes on using 1 DA Form 3328 for 2 or more property book certificates. Just X-out the certificate signed by the previous PBO (property book officer). The certificate for the new PBO, of course, would also have the latest date, so you'll not have any mix up.

If you use a fresh form for a new PBO, you can file the previous certificate in the book's inactive section. The page with the certificate, of course, is the first page in the book.

DA FORM 3328 REPLACES DA FORM 14-110, 1 MAR 62, WHICH IS OBSOLETE.

ORGANIZATION (INSTALLATION) PROPERTY RECORD
(AR 735-35)

ORGANIZATION OR ACTIVITY
1st Bn, 141st Inf

DATE	DOCUMENT NUMBER	RECEIVED	TURNED IN	BALANCE	INITIALS

I hereby assume responsibility and property book accountability for property in the quantity shown on each page of this book per joint inventory.

15 July 1969

R.R. Cope
1LT, Inf

UNIT IDENT CODE | TOTAL ALW | MODIFIED ALW

UNIT OF ISSUE | STOCK NUMBER | LINE ITEM NO.

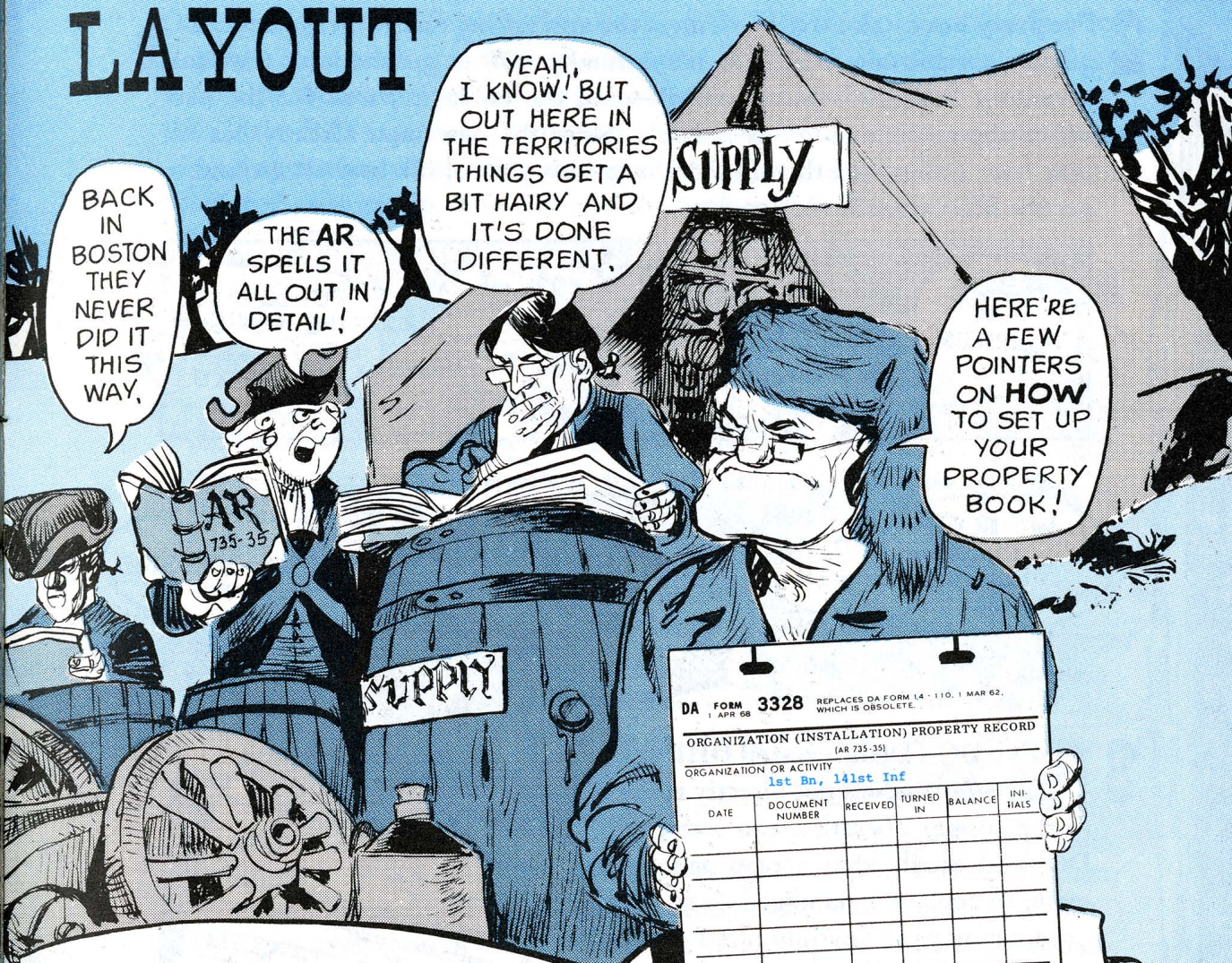
ITEM DESCRIPTION

DA FORM 3328

AUTHORITY | PRICE

PS MORE

LAYOUT



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P.S. MORE

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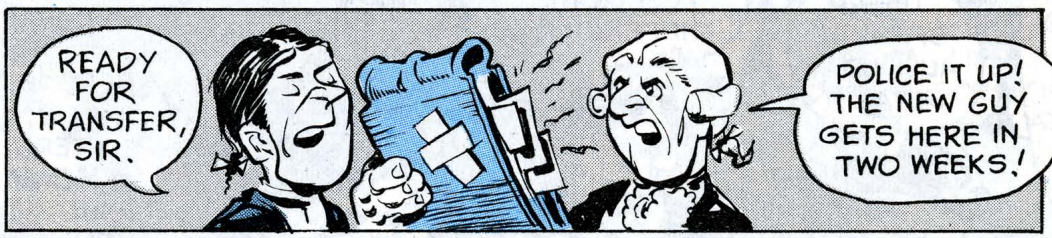

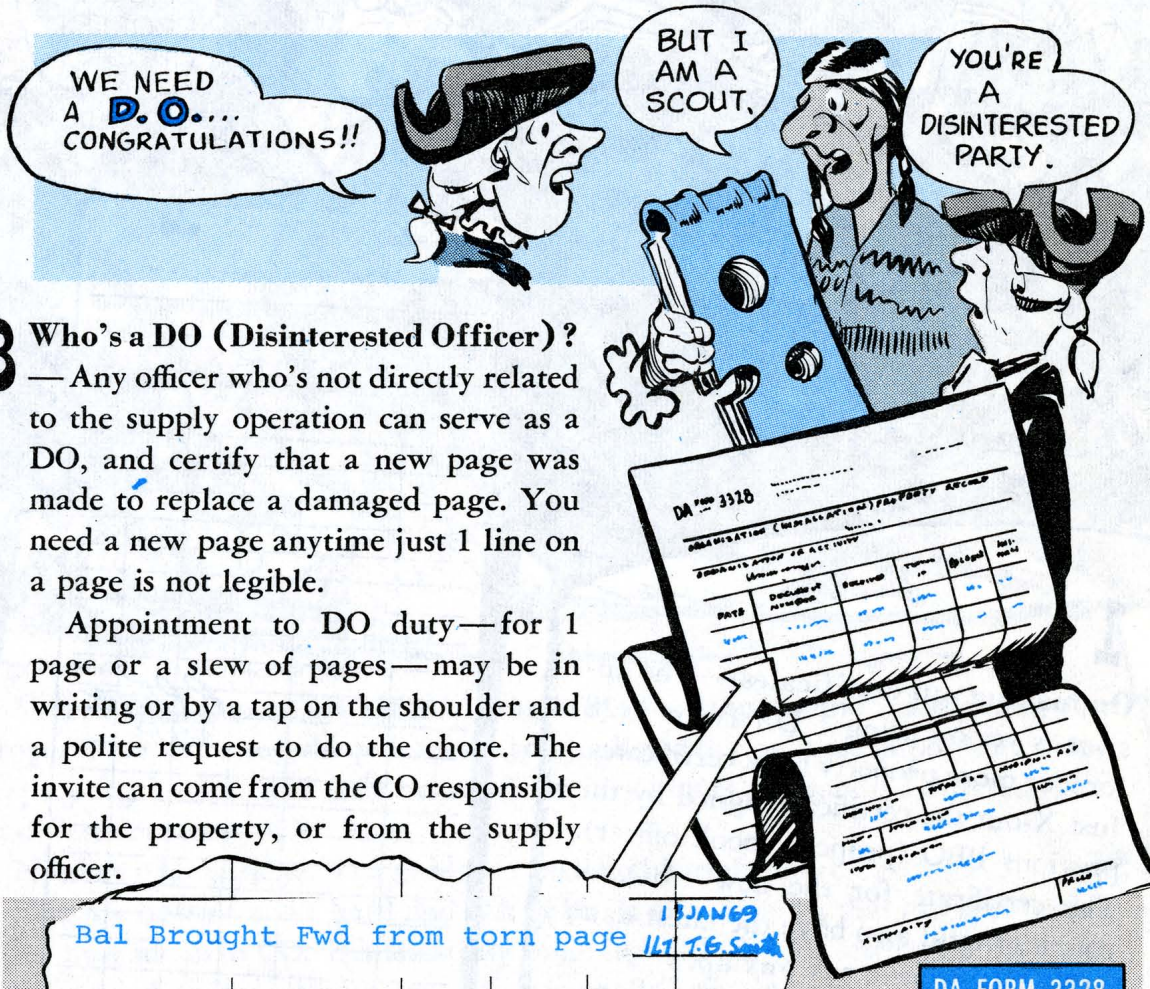

3 Who's a DO (Disinterested Officer)? — Any officer who's not directly related to the supply operation can serve as a DO, and certify that a new page was made to replace a damaged page. You need a new page anytime just 1 line on a page is not legible.

Appointment to DO duty — for 1 page or a slew of pages — may be in writing or by a tap on the shoulder and a polite request to do the chore. The invite can come from the CO responsible for the property, or from the supply officer.

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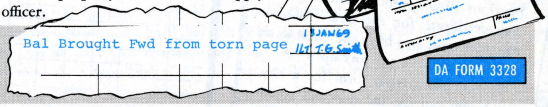

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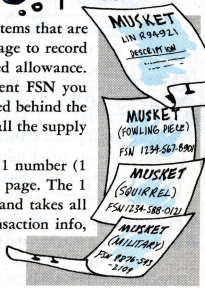
If the FSN sequence, or some other filing system, is more convenient for your operation, check with whoever sets up your supply SOP, and get an OK for your set-up. The AR says the book may be kept in LIN order.

5 **FSN's using same LIN**—For different FSN'd items that are covered by the same LIN, you need a header page to record the equipment's LIN, description and authorized allowance. And, you need a separate page for each different FSN you have under that LIN. The separate pages are filed behind the header page, in FSN sequence—and they take all the supply action on the item . . . not the header page.



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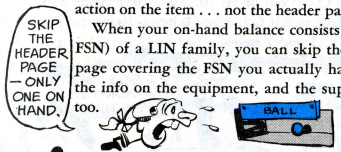

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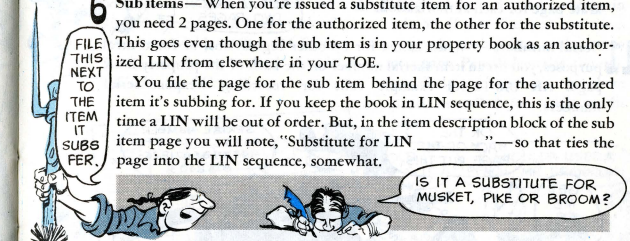
You file the page for the sub item behind the page for the authorized item it's subbing for. If you keep the book in LIN sequence, this is the only time a LIN will be out of order. But, in the item description block of the sub item page you will note, "Substitute for LIN _____"—so that ties the page into the LIN sequence, somewhat.



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PS MORE

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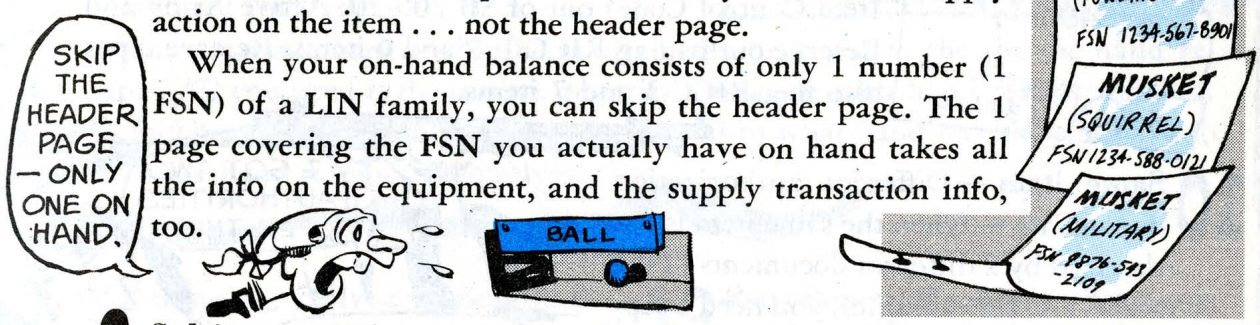

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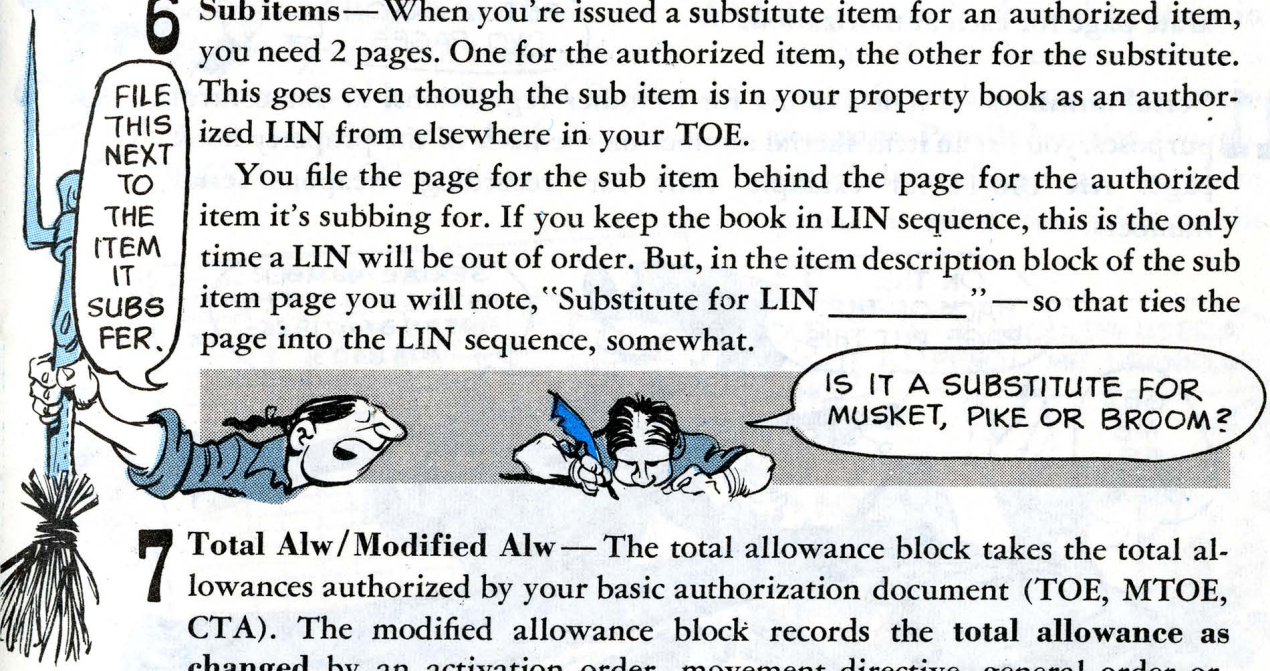

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UNIT IDENT CODE	TOTAL ALW	MODIFIED ALW
WABCAA	8	10

UNIT OF ISSUE	STOCK NUMBER	LINE ITEM NO.
	6115-012-1993	J45836

ITEM DESCRIPTION

GEN SET, GAS ENG 3KW 400 CYL

AUTHORITY	PRICE
TOE 6-425G (1)	1,341.00

Authority Block — The authority block takes your unit's TOE number . . . unless the TOE's been modified, then it takes the MTOE info. The MTOE number goes on all the pages in your book, even though the changes may apply only to specific sections or paragraphs in the TOE. In other words, when your TOE gets an MTOE, the MTOE is the unit's operating document . . . not the basic TOE.

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	LINE ITEM NO.
993	J45836
3 KW 400 Cyl	
25G (1)	PRICE 1,341.00

Flagging pages — To flag reportable items in your property book use a 1/4-in (or so) red circle in the authority block. Inside the circle note the item's RICC (Reportable Item Control Code) out of SB 700-20. Active Army and Reserve outfits flag RICC 1, 2 and 6 items. Reserve types also flag RICC 3 and 7 items.

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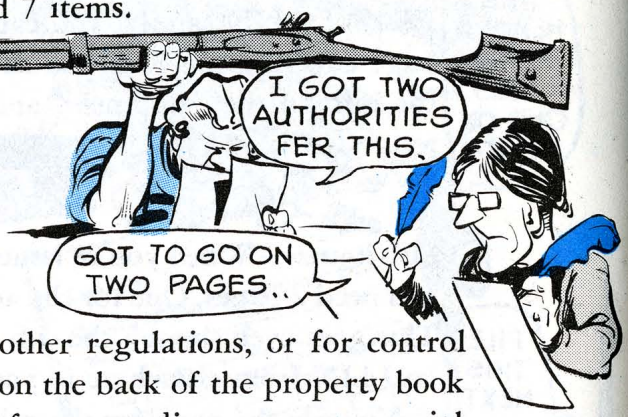

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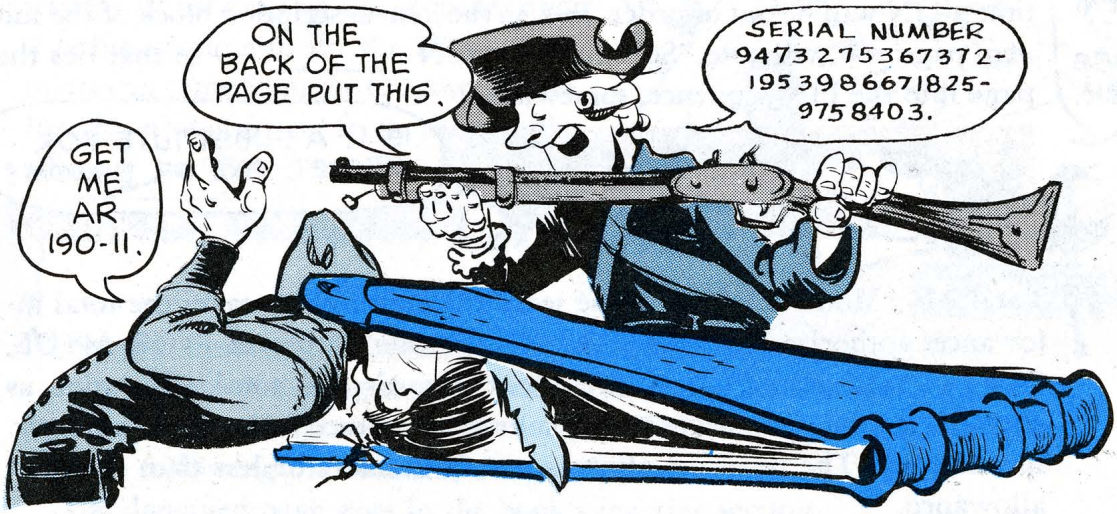

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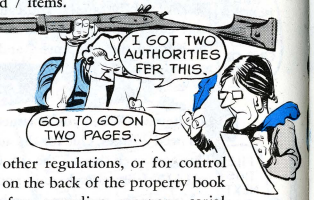

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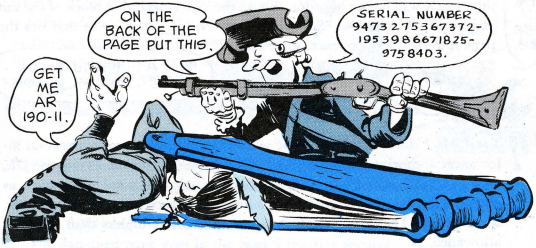
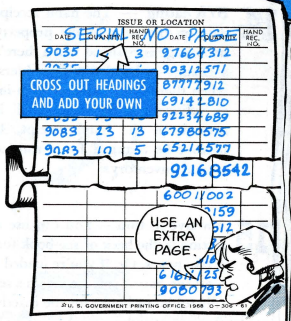


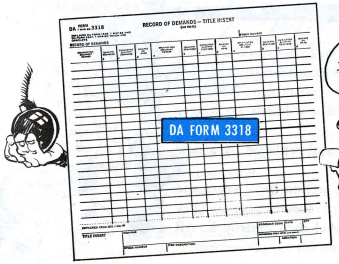
For control purposes, local SOP can require that the numbers of all serially numbered equipment (radios, optics, generators, compressors, typewriters and other office machines, etc.) be listed on the back of the property book page.

If you need more'n 1 page for recording serial numbers, just add an extra page (or as many as you need) and continue the serial number listing. You can mark the top of the page "Serial No. page," and use both sides of the page for the listings. Just be sure the numbers are easy to read. And, you file the serial number pages behind the page for the equipment concerned.

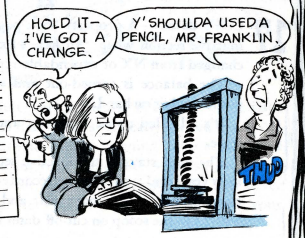


The serial numbers needn't be in any order or keyed to the specific hand receipts. All you need is the correct quantity alongside each hand receipt number. To find out which serial numbers are charged to what hand receipt, you have to check the hand receipts, themselves.

12 **X-items** — Only expendable-reportable items go in the book. See SB 700-20. You can keep track of other expendable stuff on DA Form 3318, or whatever check list is OK'd by the CO.



13 **Pen/Pencil/Machine** — Typing is OK for blocks that take entries in ink. So, if you like, you can use a typewriter when you make out a new page. Penciled entries, though, are likely to change . . . so, where pencil is called for, stick to the pencil.



PS MORE

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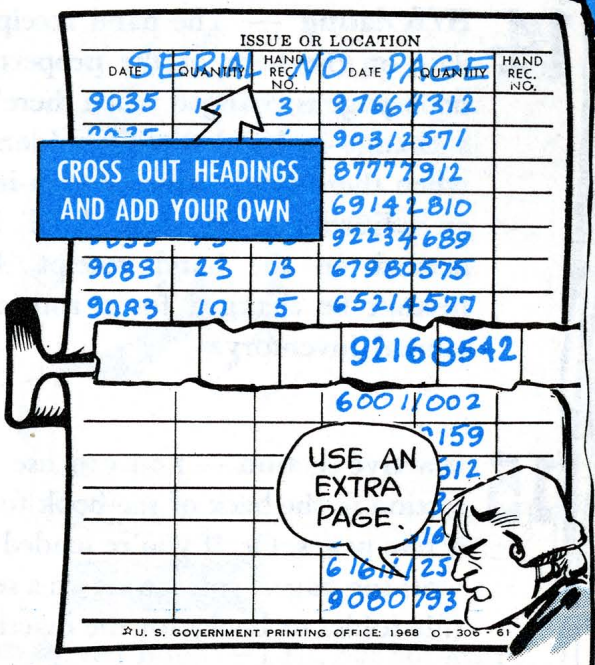
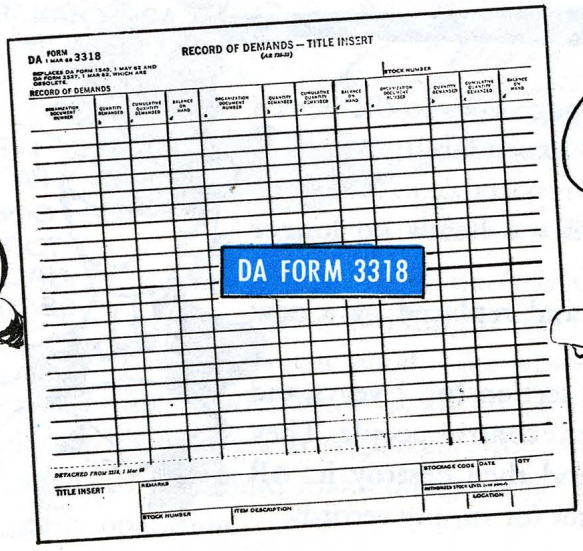
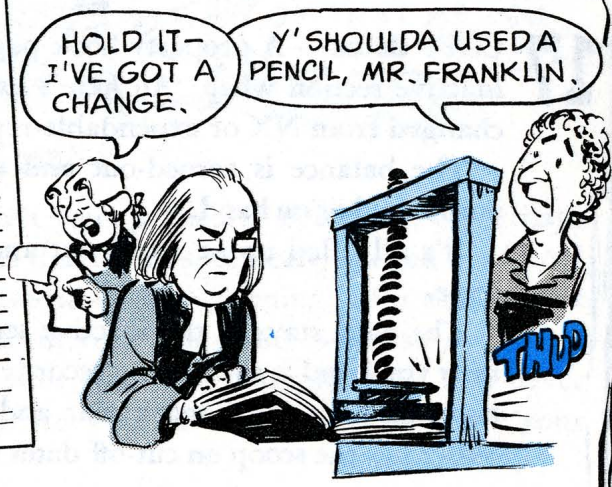


The serial numbers needn't be in any order or keyed to the specific hand receipts. All you need is the correct quantity alongside each hand receipt number. To find out which serial numbers are charged to what hand receipt, you have to check the hand receipts, themselves.

12 **X-items** — Only expendable-reportable items go in the book. See SB 700-20. You can keep track of other expendable stuff on DA Form 3318, or whatever check list is OK'd by the CO.

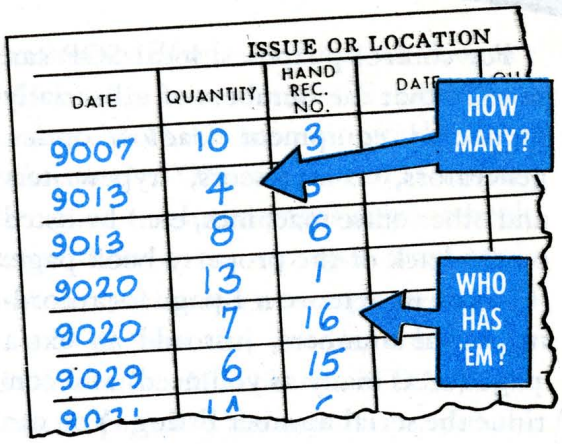


13 **Pen/Pencil/Machine** — Typing is OK for blocks that take entries in ink. So, if you like, you can use a typewriter when you make out a new page. Penciled entries, though, are likely to change . . . so, where pencil is called for, stick to the pencil.

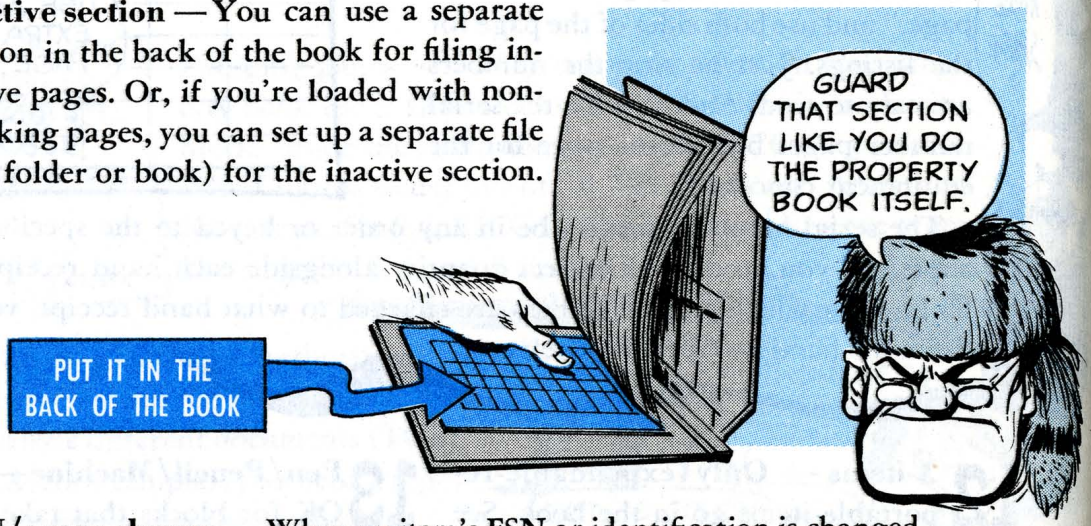


P.S. MORE

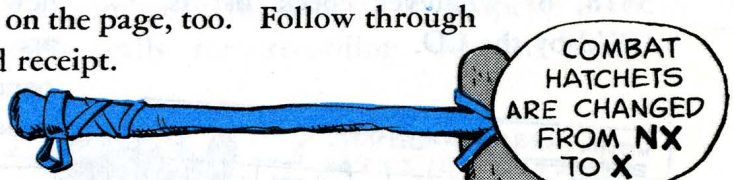
14 **H/R dating** — The hand receipt date on the back of the property book page is changed when there's a change in hand receipt holders, when there's new issue or turn-in, or adjustment of some kind is needed on the hand receipt. It needn't be changed for a routine annual inventory.



15 **Inactive section** — You can use a separate section in the back of the book for filing inactive pages. Or, if you're loaded with non-working pages, you can set up a separate file (file folder or book) for the inactive section.



16 **FSN/name change** — When an item's FSN or identification is changed . . . by some supply document or other, all you have to do is up-date the necessary info on the property book page. And you note the document that made the change (and its date) on the page, too. Follow through with changes to the hand receipt.



17 **COFF dates** — A property book page goes to the book's inactive section when: An item's expendability status is changed from NX or expendable-reportable to X.

The balance is zeroed-out and the item's no longer authorized or on hand.

It's all filled up or worn out and replaced by a new page.

The page stays in the inactive section for 2 years and then you hand it over to the records control people. They hang on to it for 1 more year and then destroy it. AR 340-2 has the scoop on cut-off dates for supply records.

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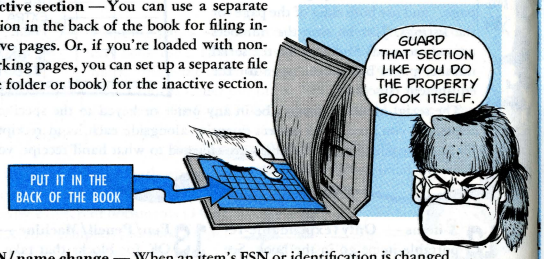
ISSUE OR LOCATION

DATE	QUANTITY	HAND REC. NO.	DATE
9007	10	3	
9013	4	5	
9013	8	6	
9020	13	1	
9020	7	16	
9029	6	15	
9031	12	6	

HOW MANY?

WHO HAS 'EM?

15 **Inactive section** — You can use a separate section in the back of the book for filing inactive pages. Or, if you're loaded with non-working pages, you can set up a separate file (file folder or book) for the inactive section.



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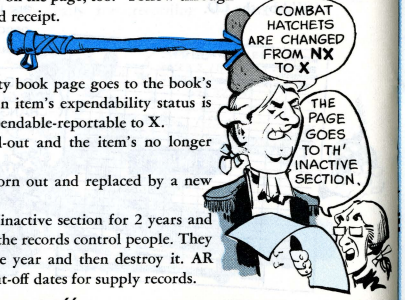

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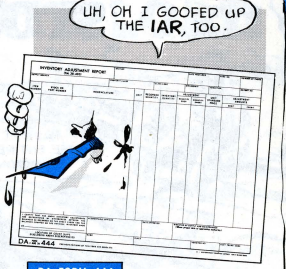
18 **Wrong ID** — When you goof up on an item's nomenclature you can correct the mistake on the property book page, with a DA Form 444 (Inventory Adjustment Report). Give the IAR a document number and explain the need for the info change on the IAR. Post the IAR to the property book page and file the IAR in your document file.

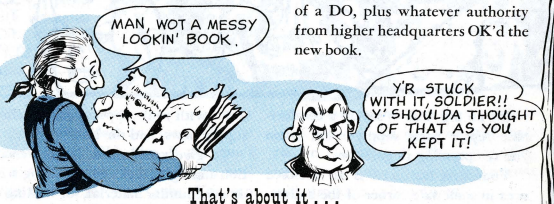
The IAR can also be used to take care of an inventory overage.

An IAR, of course, needs the CO's OK, and the form's made out according to local SOP.



19 **Classified annex** — To account for the classified equipment you need an annex to the property book. You keep the separate section under lock and key along with any documents that support it. And, you handle the works according to security regulations, just like any other documents that contain classified info.

20 **New book** — Last, but not least . . . a complete property book is never remade just for the sake of neatness. In fact, about the only time a book is completely re-made is when the book meets up with a disaster of some kind . . . a fire, flood or battle damage, etc. And, even then each page in the book needs the OK of a DO, plus whatever authority from higher headquarters OK'd the new book.



That's about it . . .

Could be some of these points don't suit your particular operation, or perhaps you have better ideas on handling points that aren't specifically spelled out in AR 735-35. That's all to the good. Like was said in the beginning, all it takes to get needed rules made official is an OK from your command. So, hash over your ideas with whoever is responsible for your command's supply SOP. You never know . . . you could make things easier for yourself and greatly improve your supply operation.

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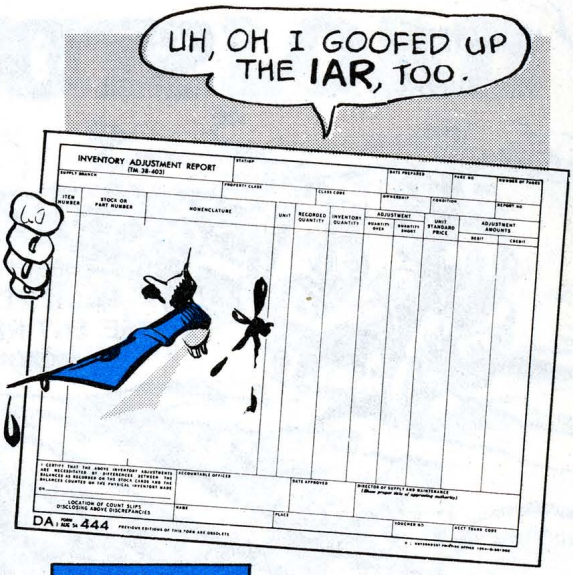

DA FORM 444

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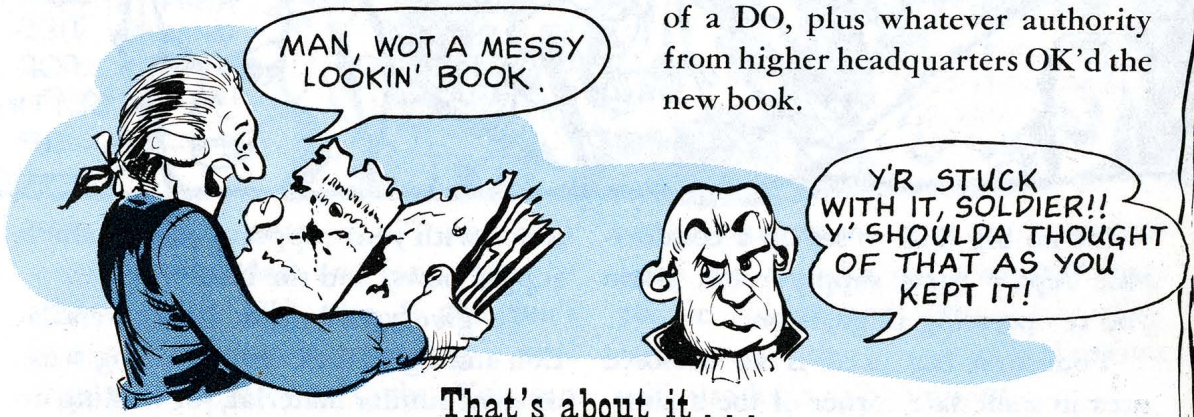

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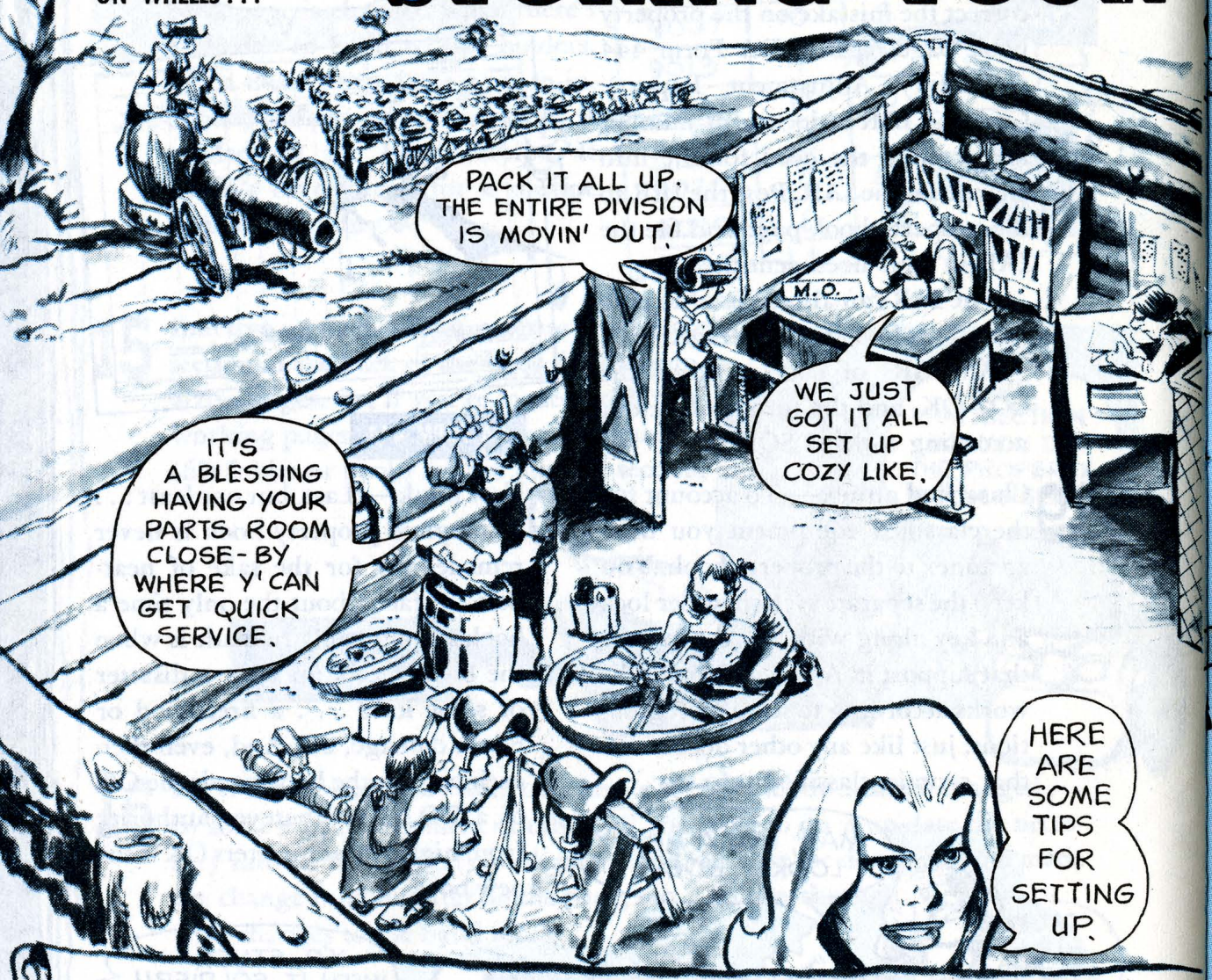
PS END

IN GARRISON OR ON WHEELS...

STORING YOUR



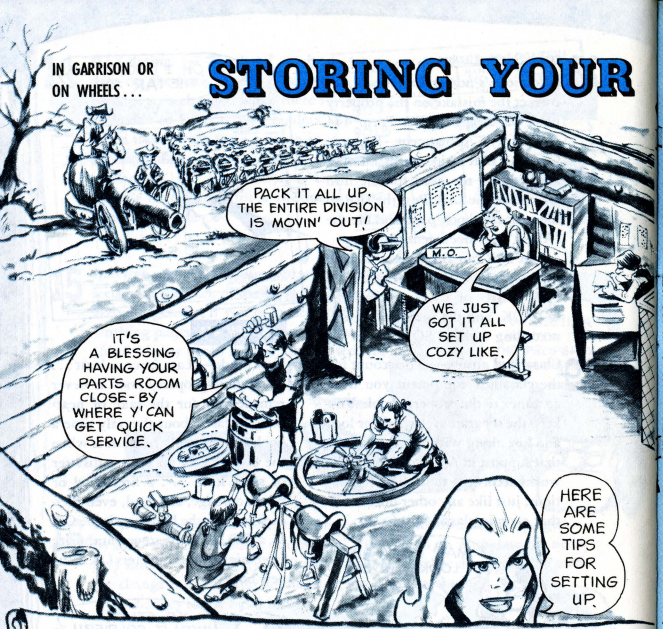
It's no big deal to set up a comfortable repair parts supply room when you're operating in garrison.

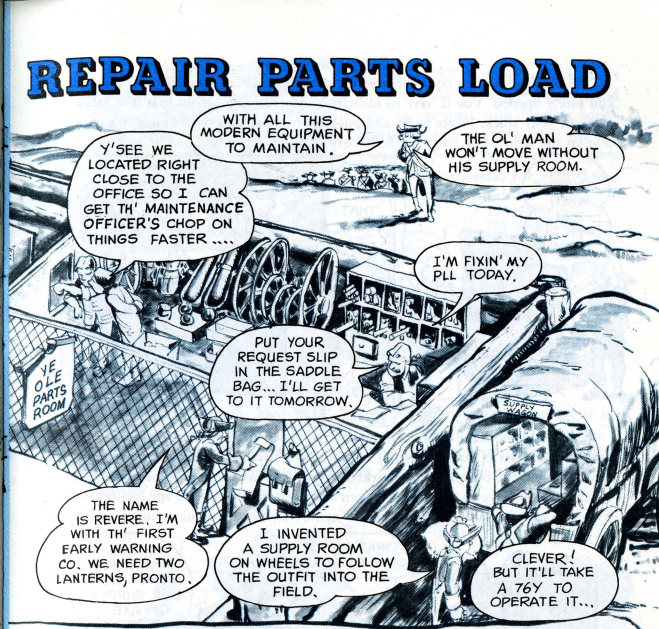
Your first big need is an enclosed area in some safe corner of the maintenance shop. If you can, set up right next to the shop office (or as nearby as you can). That keeps you close to the top man, saves you steps and straying far from your post, when you need a signature, an OK, etc. And, too, he has a phone which you can share to keep in touch with your support outfit, to check supply news, and the like.

To give your corner better ventilation and light, use cage or fencing wire, or some similar material, for walling up at least one side, or the top section of the room.

The room needn't be too roomy. Just large enough to accommodate your bins, cabinets and shelves, plus whatever other storage space you need to hold your load of repair parts and sup-

STORING YOUR REPAIR PARTS LOAD





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For privacy and security, the room needs a good door with a lock. A dutch door with a small work counter is a good arrangement. And a no-nonsense **keep out** sign on the door will keep you in charge and visitors out. Any windows or other openings in the room will also have to be secured.

Locate your desk and files across from the door, or as nearby as you can, so you'll be handy to your callers. You can hang a sturdy envelope or a small box on the door to collect request slips, when you're busy elsewhere.

REPAIR PARTS LOAD

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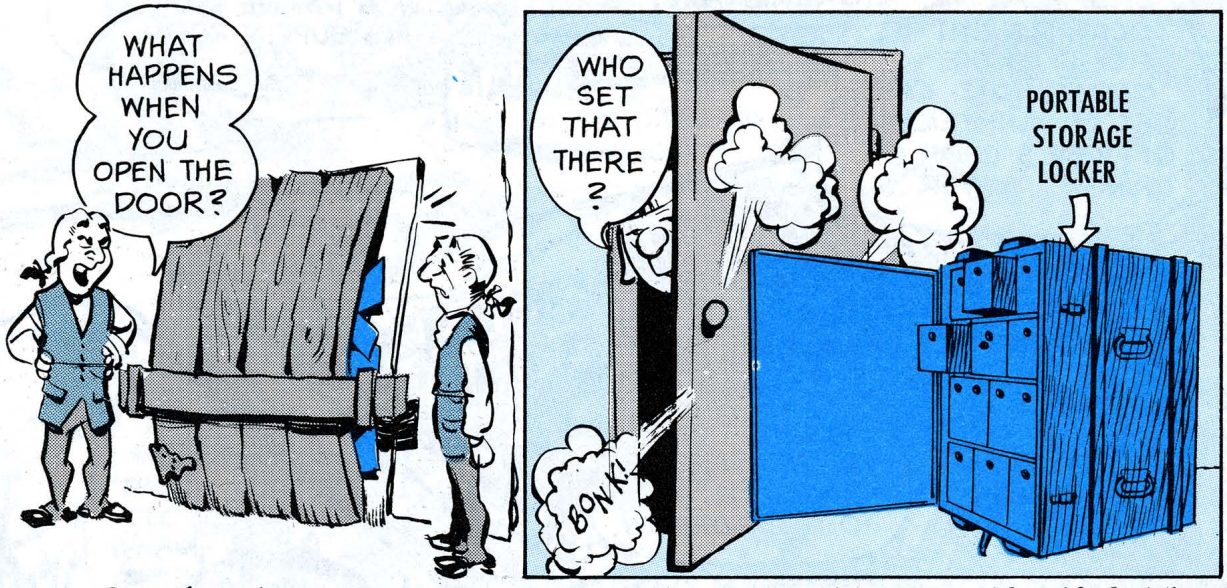
STORAGE SPACE

Line up your storage equipment so the cabinet doors and drawers can be easily and safely opened. You'll have to identify all your storage spaces so it'll be easier to work your stock, locate parts and pull inventories. You record an item's location on the item's DA Form 3318, Record of Demands card.



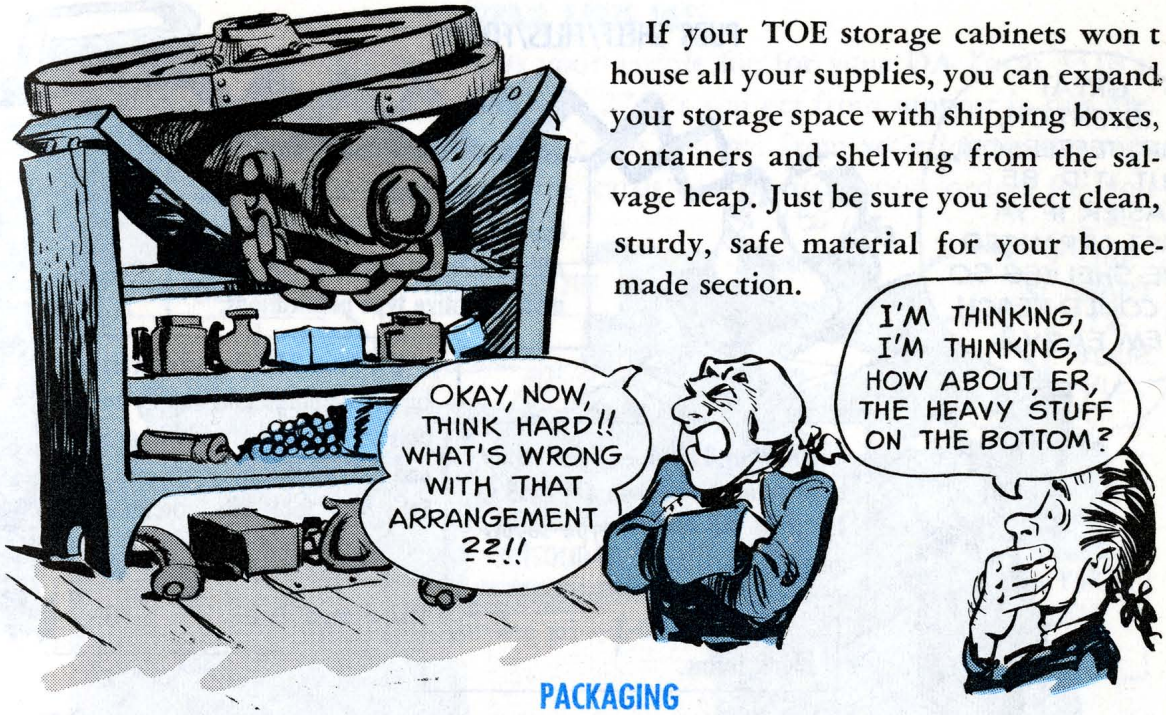
Store-bought storage equipment normally comes with spaces identified. The overall container is marked with a number or a capital letter and the separate spaces within the container are marked in sequence with numbers or lower case letters. If you have to, though, you can easily mark up your storage equipment. You can use the same combination of numbers and letters, or set up a system of your own.

You can use numbers, letters, or both, for the pigeonholes, shelves, etc.

You'll find painted and stenciled markings are more dependable than tags, tapes and other items that can be torn off or fall off.

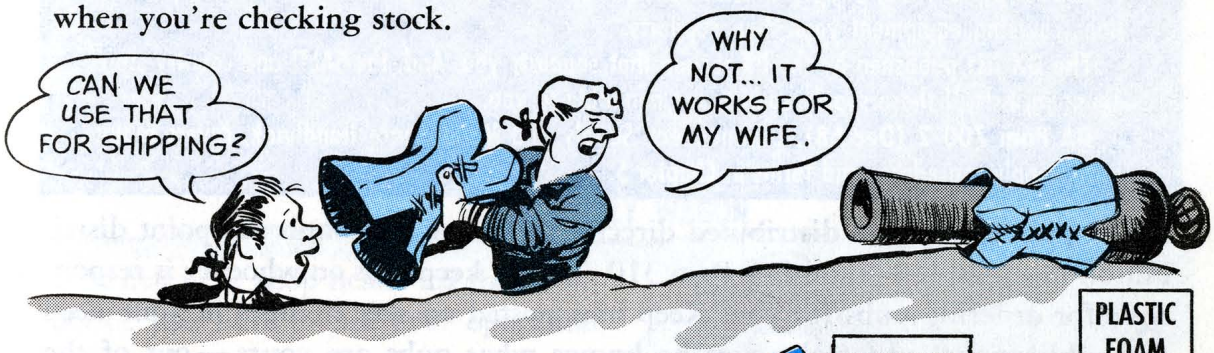
Whatever location you select for an item should be large enough to take your complete stock of the item. Or, at least try to keep your complete stock of an item in adjoining spaces, or as close together as possible.

If your TOE storage cabinets won t house all your supplies, you can expand your storage space with shipping boxes, containers and shelving from the salvage heap. Just be sure you select clean, sturdy, safe material for your home-made section.



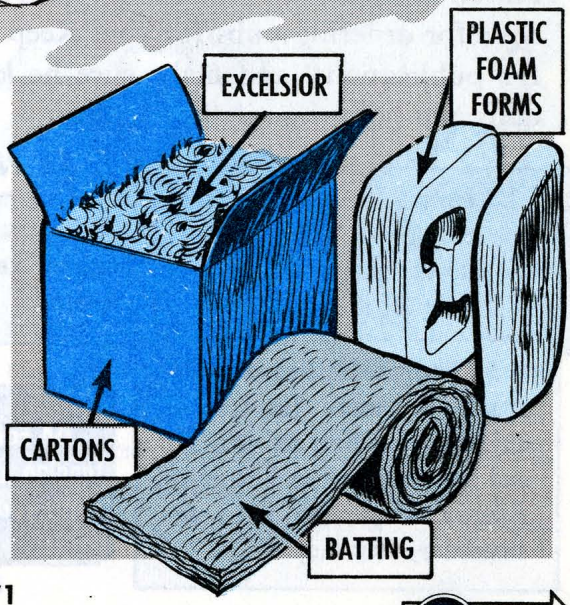
PACKAGING

Keep as much of your load as you can in its original packaging, until it's needed. That'll protect items from rust, grime, damage and loss. Then, too, if you have to turn something in, you don't have to worry about repacking. Also, packaging and containers usually provide supply info that can be real handy when you're checking stock.



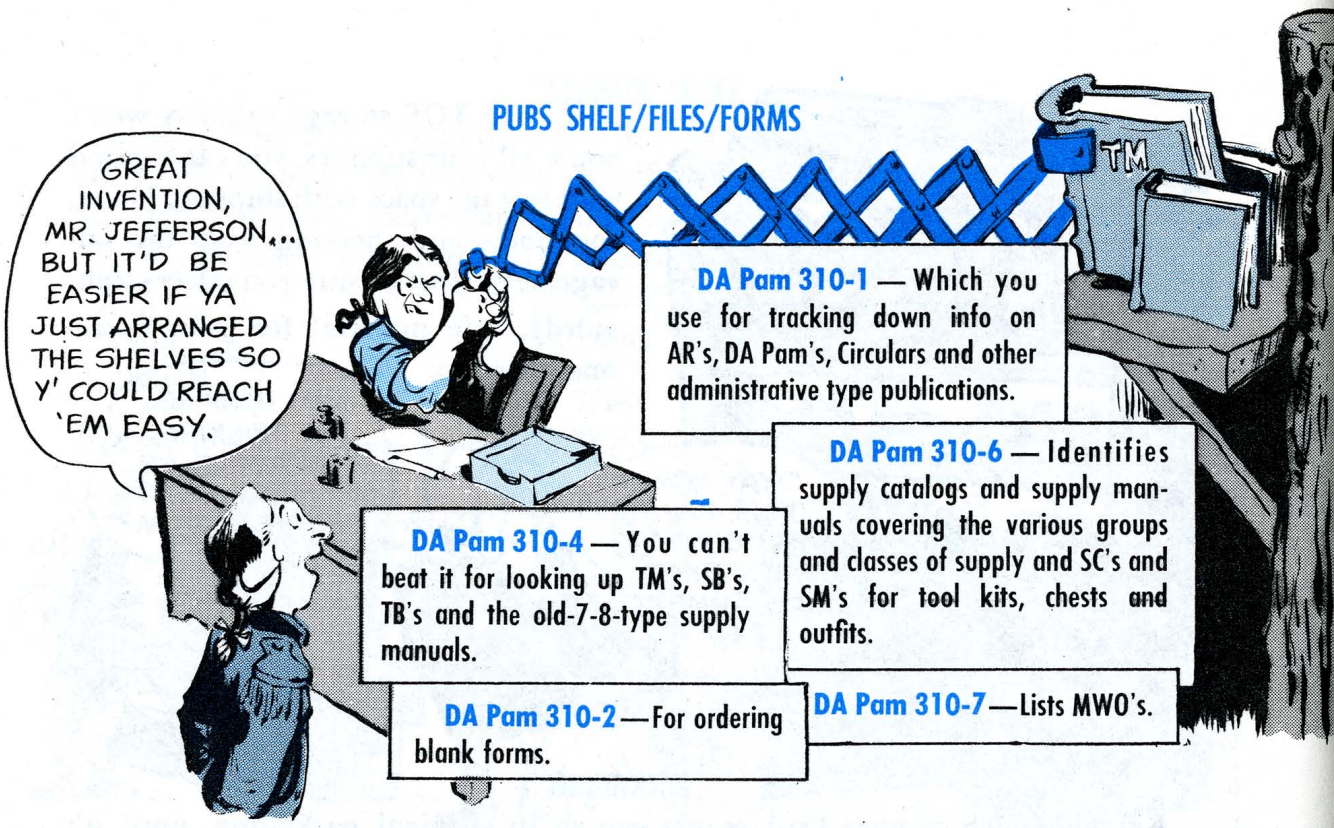
Save whatever packaging material you can to protect the recoverable-repairable DX (Direct Exchange) items. Protecting DX unserviceables pays big dividends — keeps the items from being further crippled. That saves time and money at the maintenance shop and gets items back on the DX shelf much faster.

Keep a clean, metal container of some kind handy to collect trash, so your room will stay tidy and safer to work in.



PS MORE

PUBS SHELF/FILES/FORMS



DA Pam 310-1 — Which you use for tracking down info on AR's, DA Pam's, Circulars and other administrative type publications.

DA Pam 310-6 — Identifies supply catalogs and supply manuals covering the various groups and classes of supply and SC's and SM's for tool kits, chests and outfits.

DA Pam 310-4 — You can't beat it for looking up TM's, SB's, TB's and the old-7-8-type supply manuals.

DA Pam 310-7—Lists MWO's.

DA Pam 310-2—For ordering blank forms.

Other important pubs you need—

AR 735-35 — Gives you the DA PLL SOP, and forms and records. See Sections IV and VI.

Repair parts TM's, supply manuals, manufacturer's lists, plus all other supply publications covering equipment your shop supports.

The DX list published by the DX section that supports you. And, the SALTI and country-store shopping lists, if those supply sources are available to you.

DA Pam 700-2 (Dec 68), Commanders' Supply and Maintenance Handbook, covers repair parts supply procedures and forms in Chapter 5.

DA publications are distributed directly to the user through pin-point distribution (See AR 310-1 and DA Pam 310-10). So, keep tabs on whoever is responsible for ordering pubs for you. Keep him posted on any changes in your need for publications, and make sure he knows what pubs are yours—out of the daily pin-point bundle he receives.

REPAIR PARTS FORMS

DA Form 2765, Request for Issue or Turn-in. Supply support may provide pre-printed 2765's for all your PLL items.

DA Form 2064, Document Register, for keeping track of your requests.

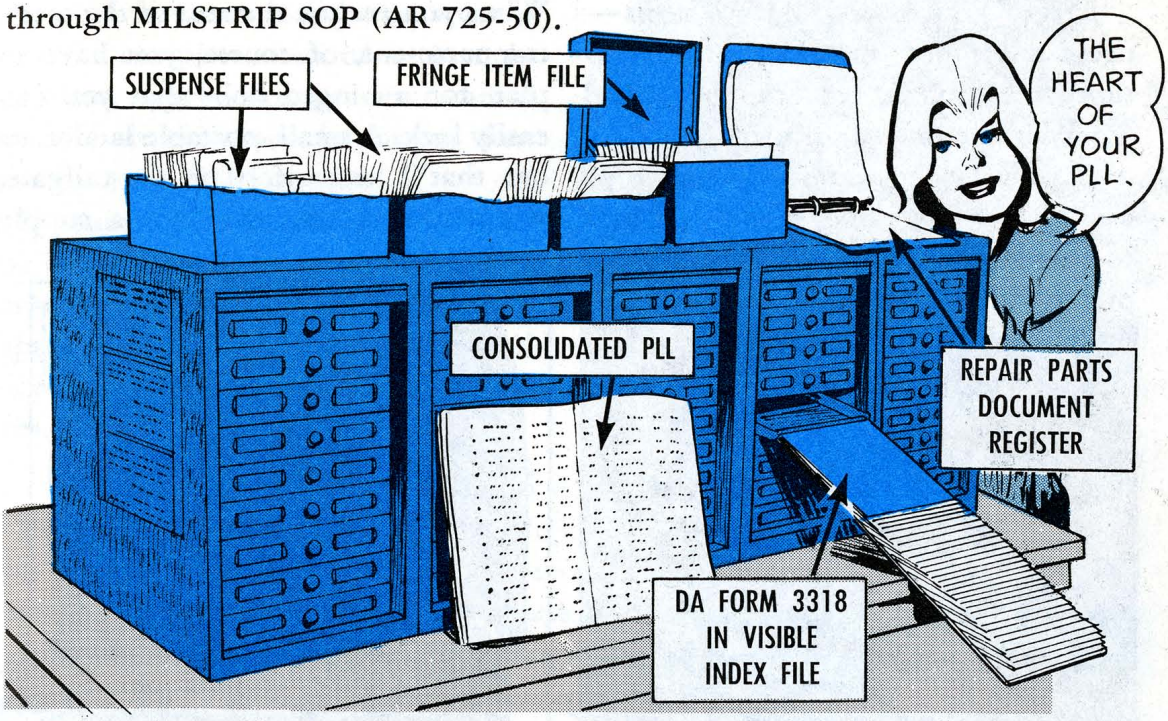
DA Form 3318, Record of Demands-Title Insert. You need a 3318 on each item on your PLL and you set up a card for each different fringe item that's demanded by your shop.

DA Form 2402, DX tag. For tagging recoverable/repairable items you take to the DX section.

REPAIR PARTS FILES

The heart of your PLL records is your visible file for your DA Form 3318's. You also stash any pre-printed DA Form 2765's you get from support in this file.

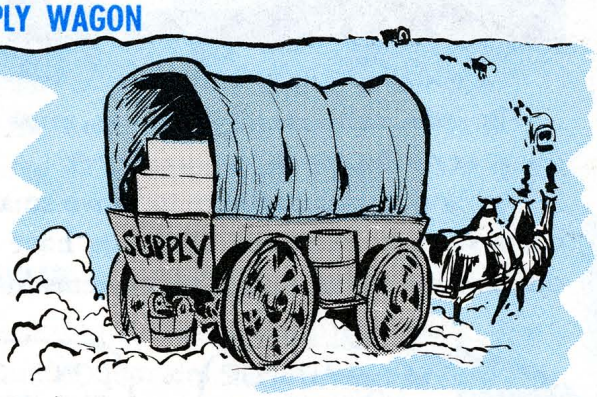
Two suspense files. One for due-in cards you get from your immediate support, and the other for due-in's (status cards) on items support orders for you through MILSTRIP SOP (AR 725-50).



Fringe items file. For your DA Form 3318's requesting fringe items.

And, that's about how your repair parts supply store shapes up when your shop is under a permanent roof.

YOUR SUPPLY WAGON



When your shop heads for the boondocks, you have to put your operation on wheels, and space and conveniences get a bit scarce for you.

Most everything goes with you . . . lock, stock, storage equipment, files and publications. It'll be a mite crowded for you and your daily business may pick up somewhat, so the best thing you can do is try to set up the same kind of storage operation you had in garrison . . . or, as near as you can come to it.

A couple or three 2 1/2-ton, 6x6, cargo trucks and a couple of 1 1/2-ton trailers, with bows and tarps installed, can take care of a fair-sized parts operation.

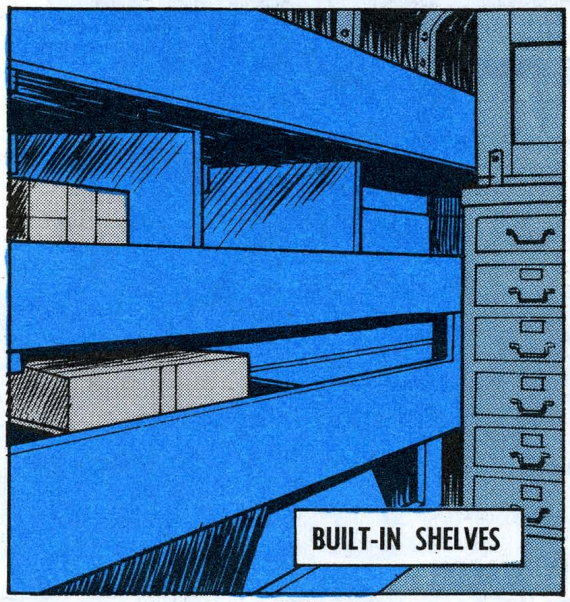
You can arrange your parts cabinets, bins and shelves along the sides of a vehicle's cargo compartment. If you

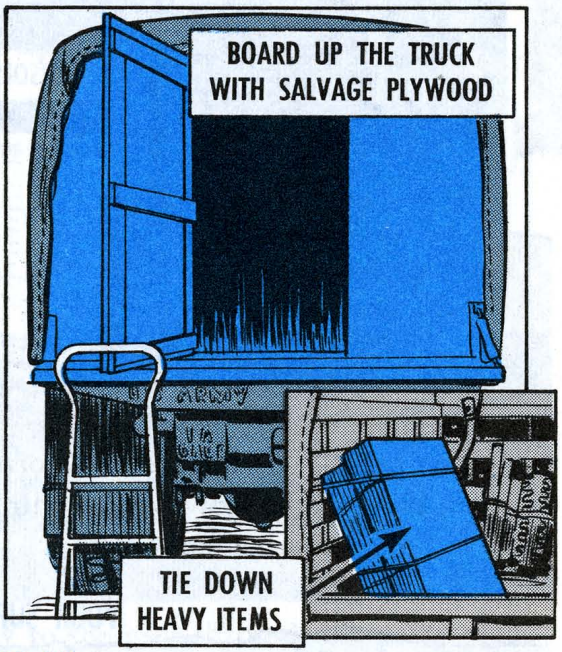
PS MORE

think any of your storage equipment will shift when you're traveling, lash it down. And, it's a good idea to board up the lower, front section of open shelves, so things won't fall out.

Large, crated and bulky items—tires, tail pipes, sprockets, track sections, oil coolers, etc., can be lashed down in one of your trailers.

If your loaded status is going to be kinda permanent like, it's a good idea to board up your trucks' cargo compartments, if you can. Before the bows and tarp are installed on a truck, for example, you can line the inside of the cargo body with removable sections of used plywood, or some other satisfactory material, from the salvage yard. When you enclose the rear of the cargo compartment, of course, you have to plan for a hinged door that you can easily lock. A small, portable ladder, or one that'll lean safely on the tailgate, will do as a stairway into a supply truck.

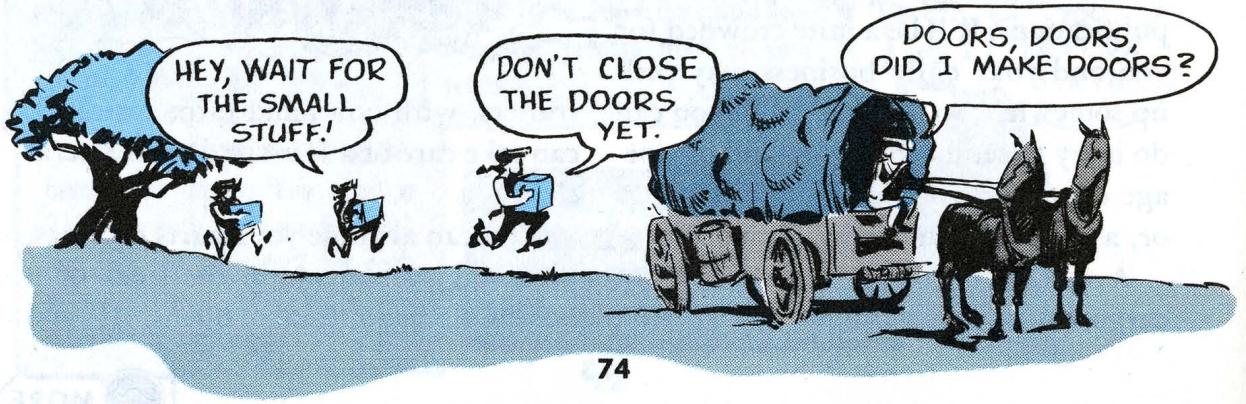




LOADING UP

The bins, cabinets, shelves, etc., must be loaded, of course, before you enclose the rear of the truck.

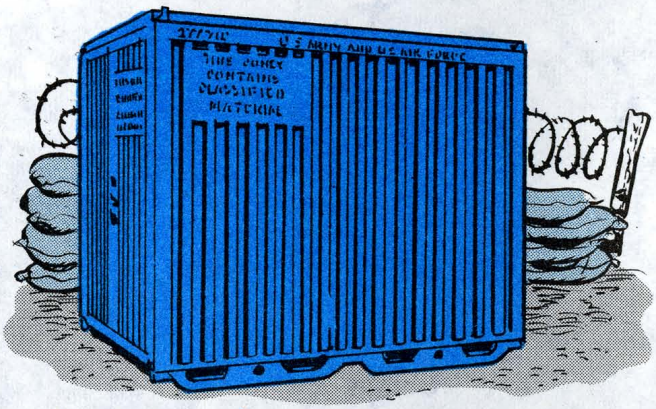
Use boxes or containers to move small items from your supply room to your truck storage. Most any OVE you have can go to the vehicles it belongs to. You can also load some large, bulky items in the vehicles that'll most likely need them.



Pubs and records are just as important in the field (maybe more), so they have to be located together in some permanent spot. If you plan right, you, your records and a fair amount of your smaller items can be located in the main vehicle you'll be operating out of.

When you're operating out of vehicles, you may not always be able to store the complete stock of an item in one place, so good storage identification and info are even more important than ever for your PLL records.

If your shop maintains classified gear you'll need a vehicle to tote the Conex container that houses its maintenance supplies. And, in the field, the classified container will have to be in a secured area, just as it was back at the shop.



CLASSIFIED MATTER CONEX CONTAINER

BUSINESS AS USUAL

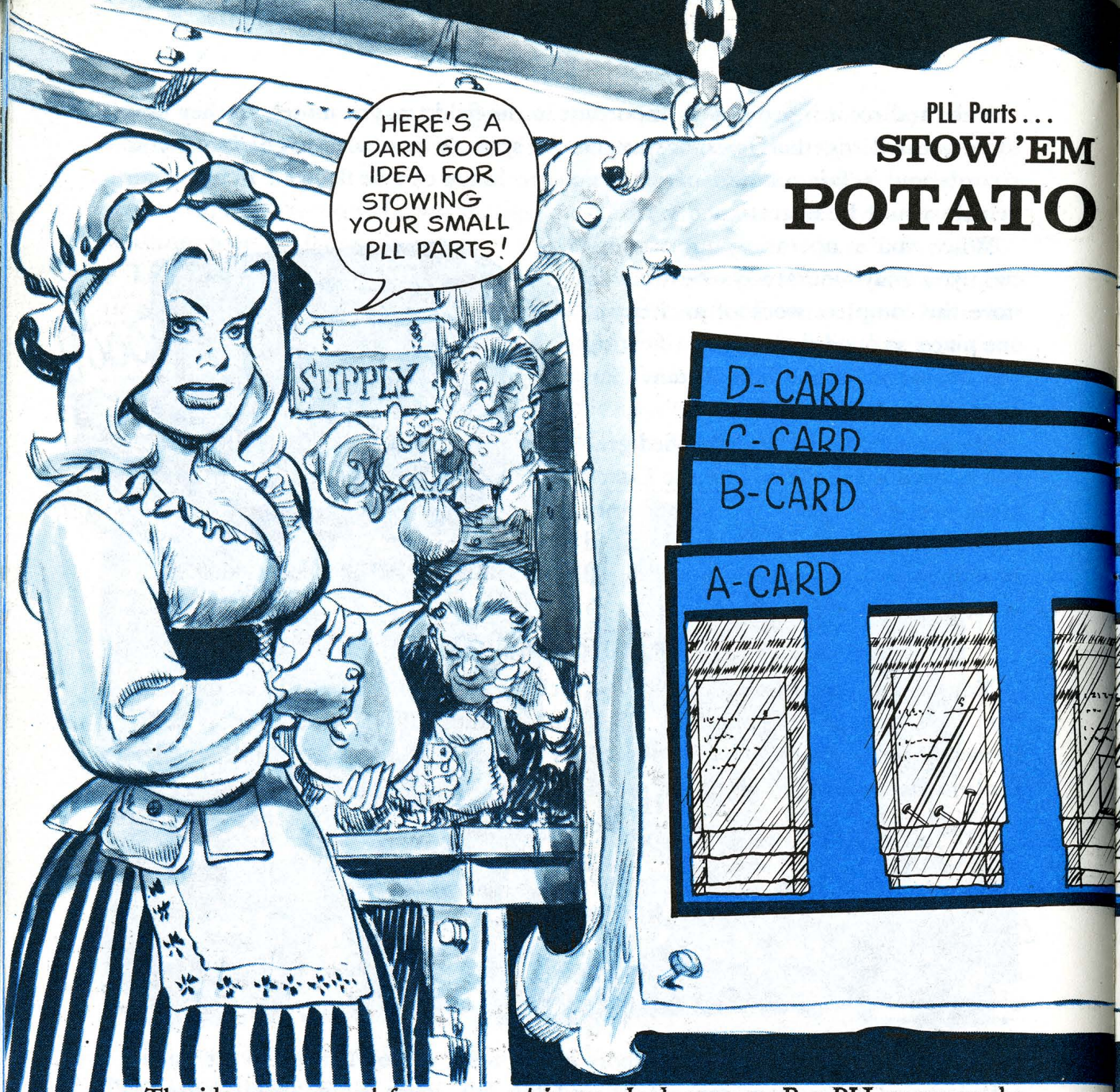
Your request and turn-in SOP won't change much—if at all, in the field. You have to keep all your PLL SOP, records and pubs up-to-date as possible. Remember to leave your change of address wherever it's necessary, to be sure you continue to receive the latest publications.

You'll also find DX service support in the field, so you'll need to set aside a safe location where you can collect and tag DX items right away—and get them to the DX section soonest.

PLAN AHEAD

Even though you and your load may be sitting in a cozy shop right now, you never know how long you'll be in permanent quarters. So it's a good idea to plan ahead. Check your outfit's SOP and work up a loading plan of some kind for your load and your storage equipment. Check up on the vehicles that'll be assigned to your supply operation. Figure up space for large items and what kind of enclosure you can fix up for your vehicles. Then you'll be able to make an orderly move if and when the time comes . . . otherwise you might have to bug out some day and leave half of your shop's life-blood behind.

PS END



PLL Parts . . .

STOW 'EM POTATO

The idea may sound funny—and it may look strange. But PLL parts can be stowed like so many bags of potato chips if you're not authorized, or can't get any tool and spare parts cabinets.

Trim several sheets of chart board to fit inside a salvaged foot locker. You can staple up to 6 rows of 6 sacks each on a single board. And 6 boards can be stacked in a standard foot locker without forcing.

Each sack takes the authorized stockage quantity for one item. All sacks are attached in FSN sequence. You may use a brown paper sack or the plastic bags (FSN 1005-052-6942) that M16A1 riflemen carry to protect their ammo magazines.

But the mag bags have an edge. Besides being rugged enough to hold the parts, they're clear on one side. This makes them outstanding for inserting

PLL Parts...

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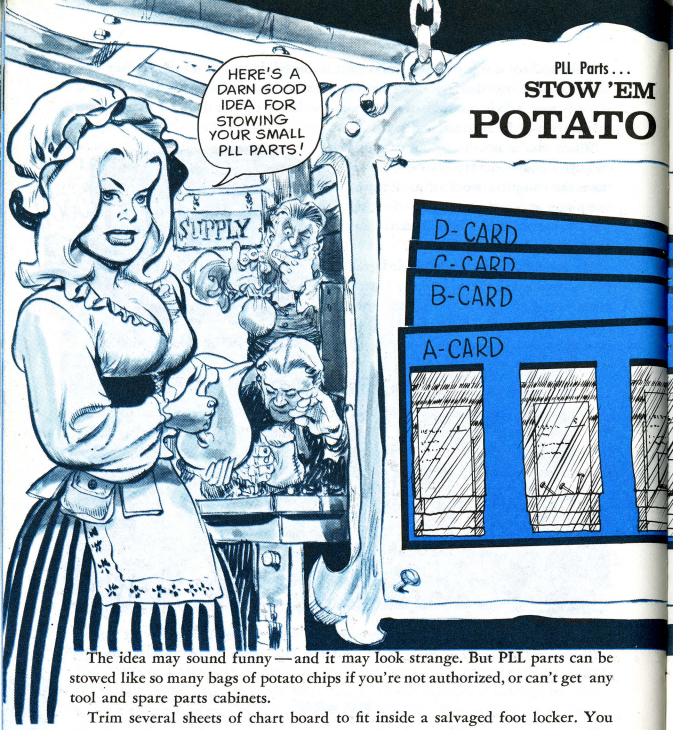

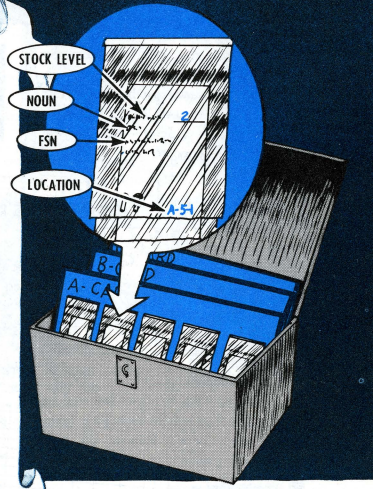

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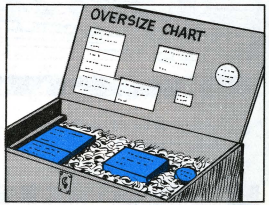
But the mag bags have an edge. Besides being rugged enough to hold the parts, they're clear on one side. This makes them outstanding for inserting a typed 3x5 card inside . . . listing that part's stockage level, FSN, noun and storage location.

If a writing machine's not available, just grease pencil the same info on the outside of that sack or mag bag.

TOO BIG

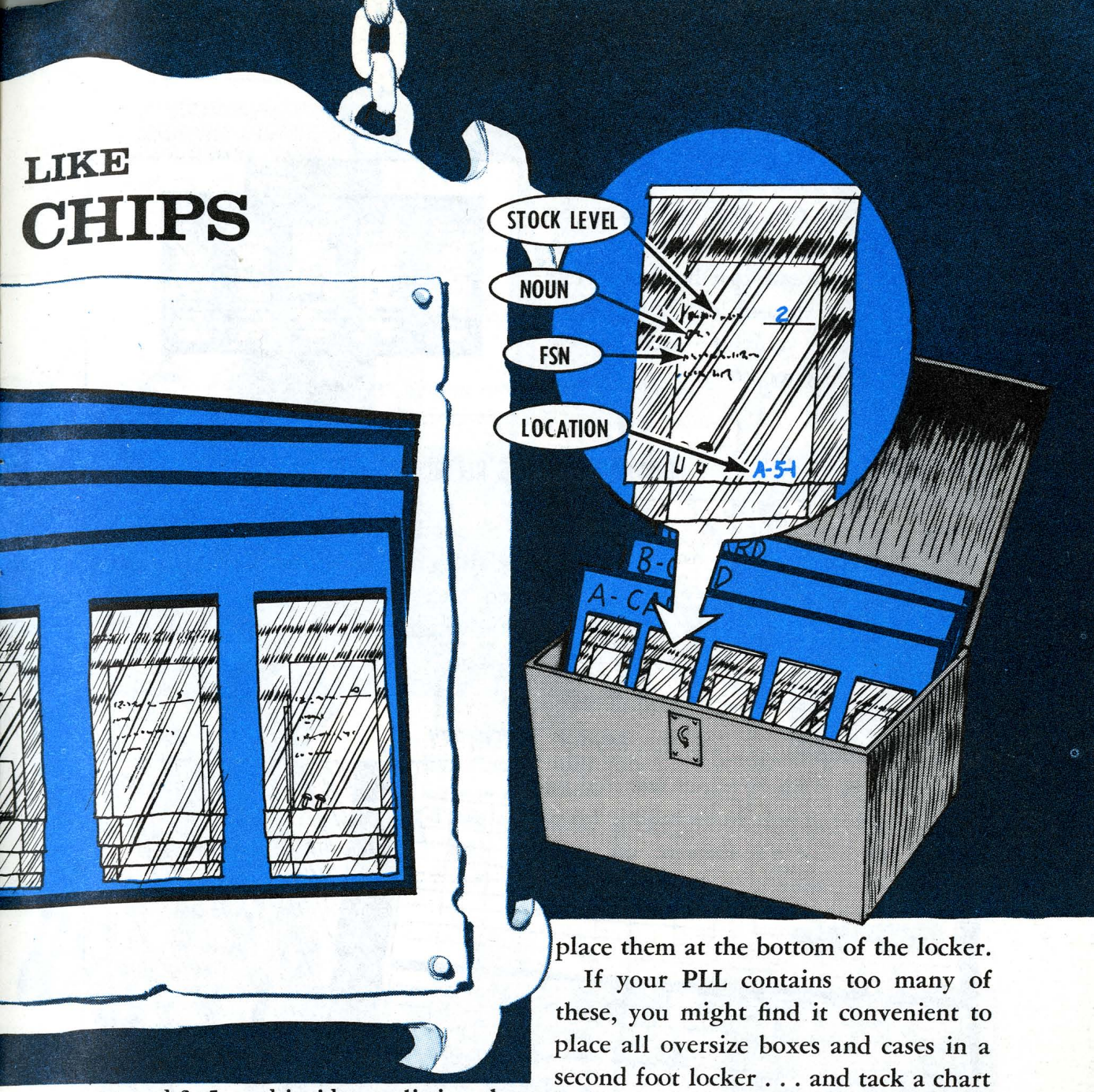
Not more than 1 out of 10 of your PLL parts will be too big to fit these bags. For these items, mark "oversize" in their chart board locations—and place them at the bottom of the locker.

If your PLL contains too many of these, you might find it convenient to place all oversize boxes and cases in a second foot locker . . . and tack a chart to the inside cover for identification.



PS MORE

LIKE CHIPS



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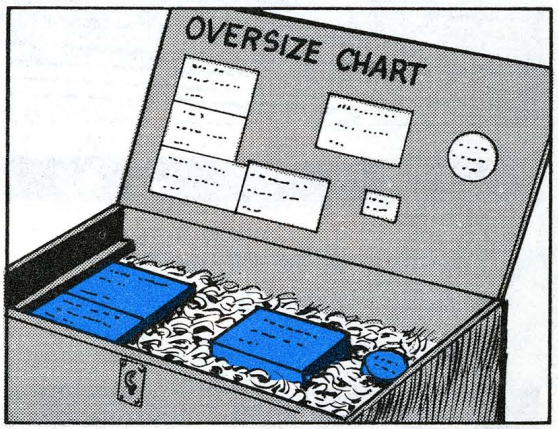
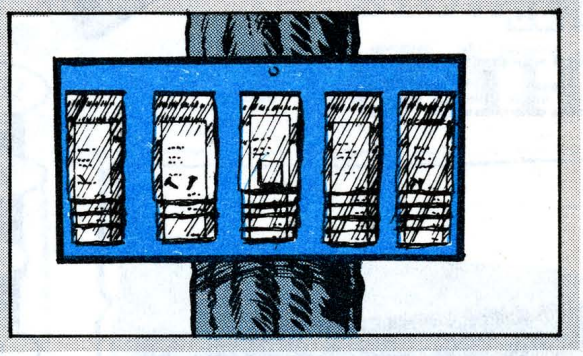


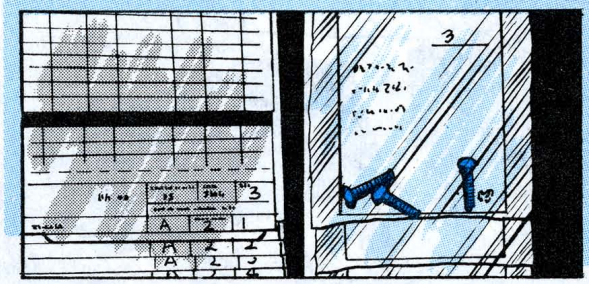
PS MORE

ALWAYS READY

Everything remains in the foot locker(s) with this locator system. So you're always ready to chogie out. When you bivouac, just haul out your potato chip cards and lean 'em against a nearby tree or vehicles—or hang 'em from nails fastened to trees or ground stakes.



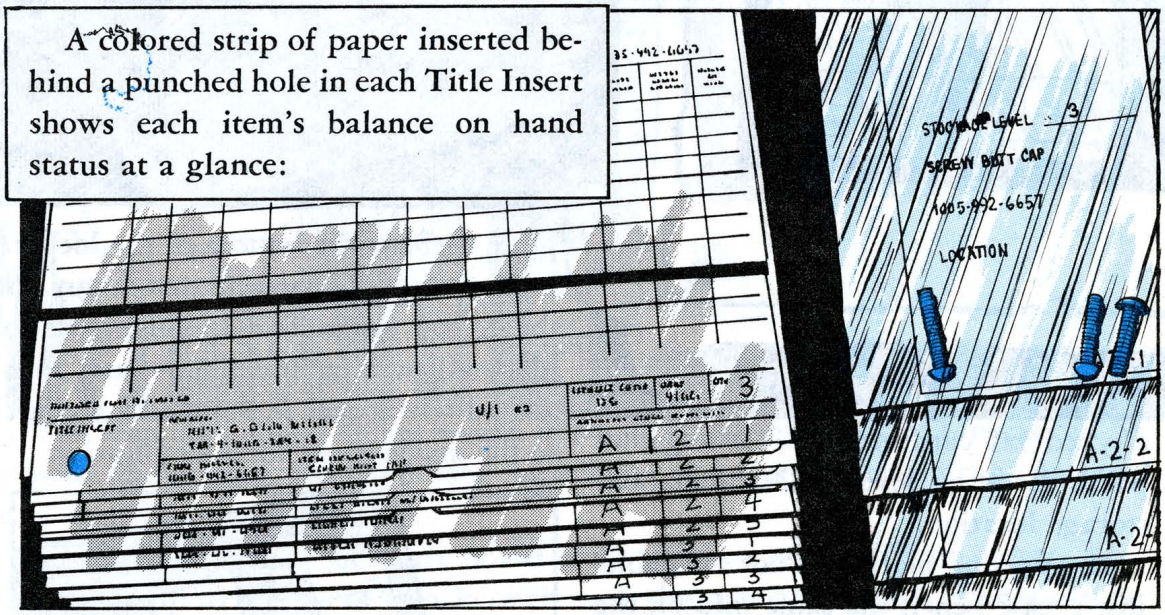
CONVENIENT CROSS REFERENCE



Your PLL cards and visible files are in the same FSN and storage location sequences. Bring them side by side and you've got a convenient cross reference system.

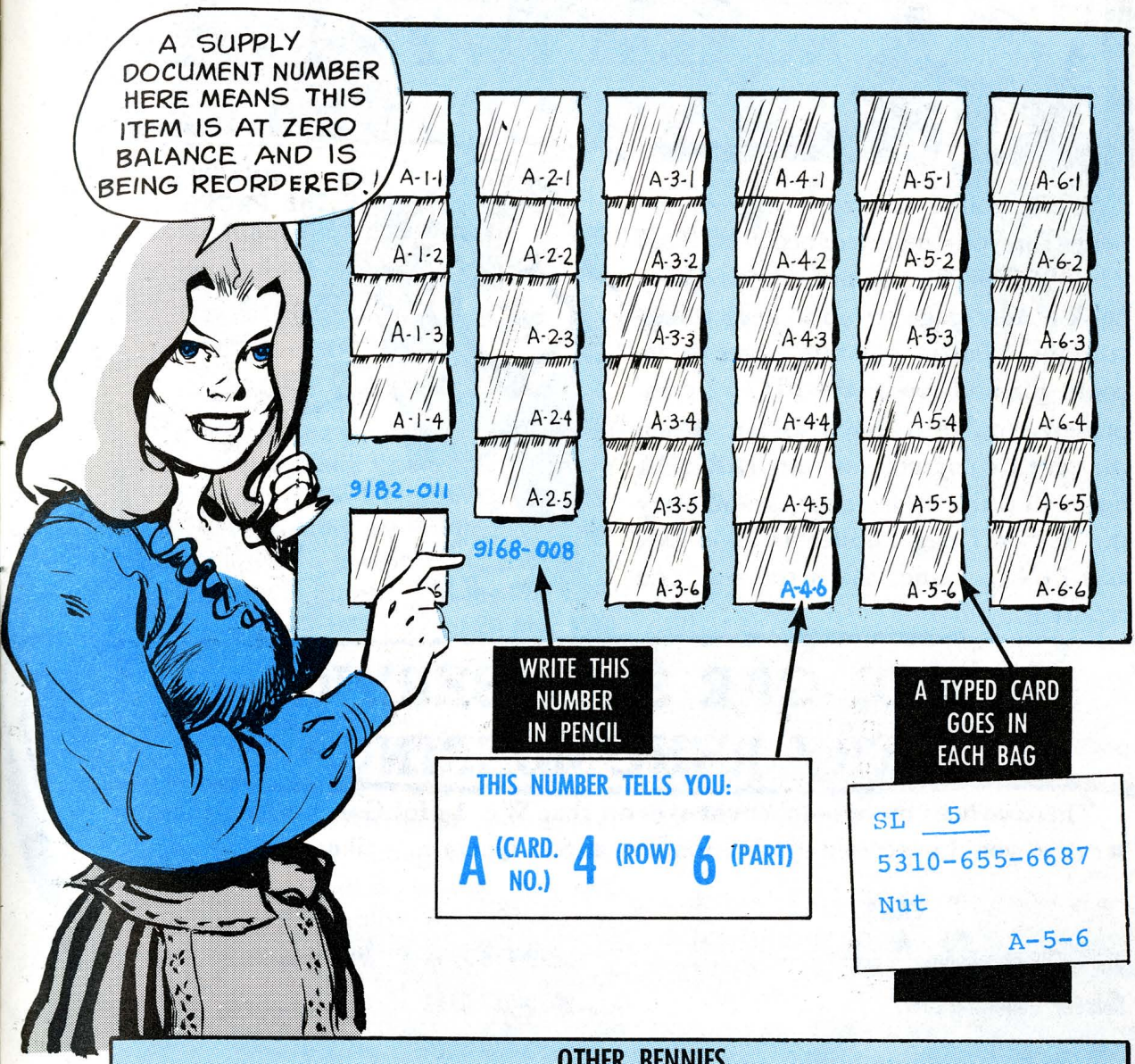
INSTANT INVENTORY

A colored strip of paper inserted behind a punched hole in each Title Insert shows each item's balance on hand status at a glance:



Green = authorized quantity on hand
Amber = partial fill
Red = zero balance

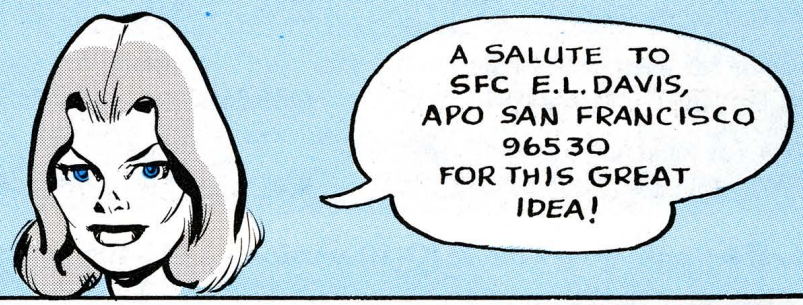
Replacing each empty bag with a penciled-in reorder document number verifies each red dot condition—and shows supply action has been taken to correct that zero balance. An eyeball inventory verifies each amber and green quantity.

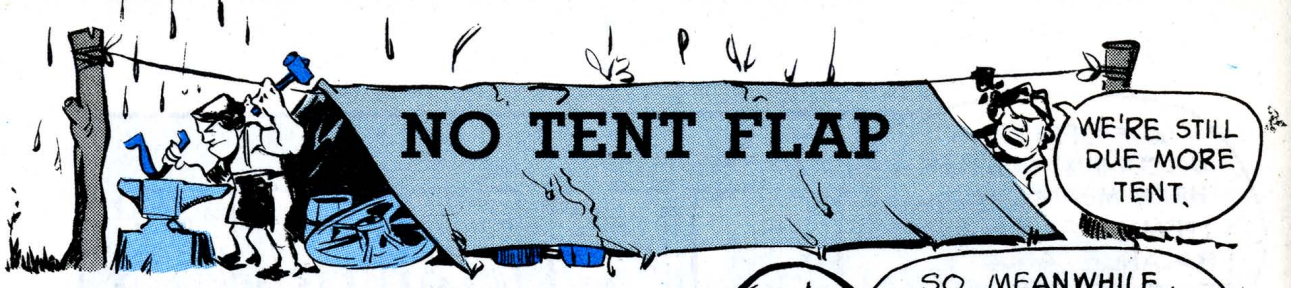


OTHER BENNIES

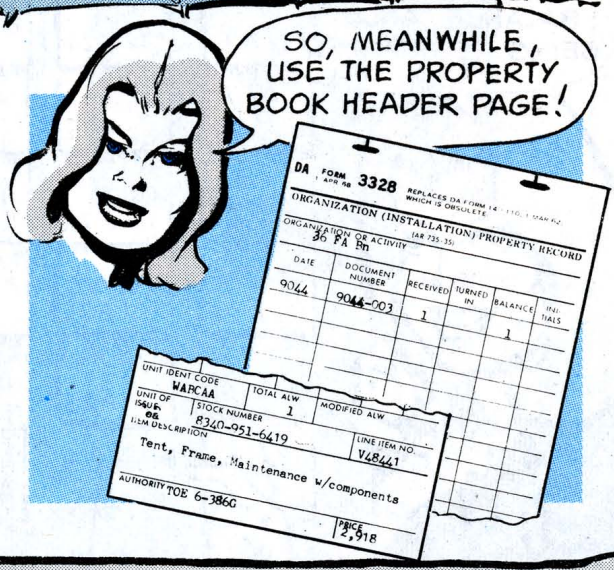
Several other benefits of this unique locator system are:

- Fewer small parts lost.
- Deleted PLL items are easy to spot for turn-in.
- PLL cards can be used with or without a parts cabinet.





While you're still receiving components for your maintenance tent (FSN 8340-951-6419), you need the property book header-page set-up to keep things straight. That is, separate pages to account for and report the RICC 2 components you've received so far. When the tent's complete you can IAR (DA Form 444) the separate pages, and carry the tent on 1 page, under its basic FSN and LIN . . . and, that's the way you report it.



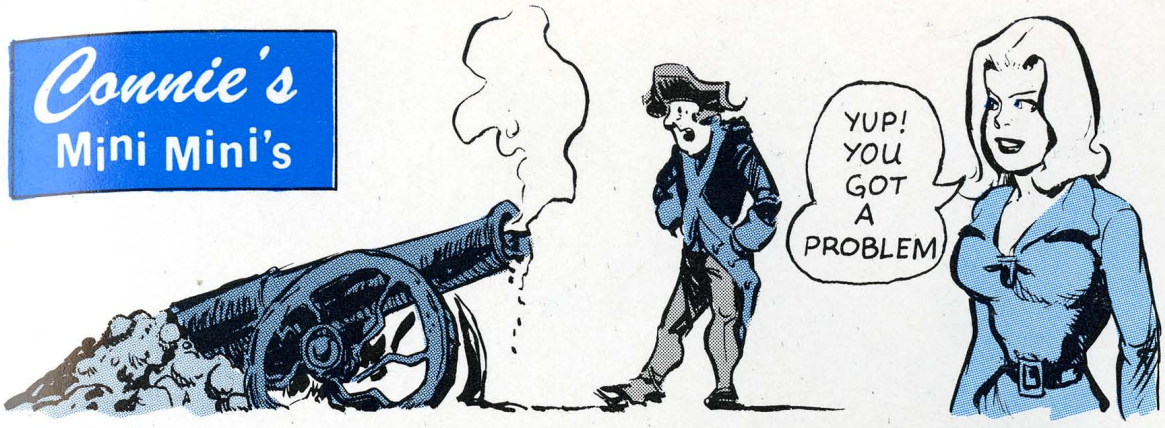
HOL-GAR SLUMBERING? TRY RENUMBERING

There've been more number changes on that WK-1 Hol-Gar 30KW generator set than you'd expect on graduation day at San Quentin — like:

ITEM	FSN	P/N	CODE
Belt Set, Water Pump	3030-778-1241	MS 51065-36-2	96906
Belt Set, Generator Drive	3030-017-9733	MS 51065-34-2	96906
Belt Set, Fan Drive	3030-832-4310	MS 51066-40-2	96906
Cable Assy, Power, 170 in lg	6150-952-7006	13214E1433-2	97403
Cable Assy, Power, 246 in lg	6150-949-0662	13214E1433-4	97403
Regulator, Voltage, for Serial Nos. 1 thru 1208, Contract No. DA-11-184-AMC-284	6110-868-7951	20000-679	73239
Regulator, Voltage, Serial Nos. 1 thru 169 and 1209-2028, Contract No. DA-23-195-AMC-1210	6110-059-4864	28102-100	97520
Relay Assy. Control Box (rear) for Serial Nos. 1-1208 incl, Cont. DA-11-184-AMC-284	6115-868-7952	20000-723	73239
Relay Assy. Cont. Box (rear) for Serial Nos. 1-169 and 1209-2028, Cont. DA-23-195-AMC-1210	NONE ASSIGNED	20000-810	73239

(Those cables only go on the MJQ-10 version of PU-406 so's you can switch from one generator to the other.)

Connie's Mini Mini's



Radio Decal Now

It's official! The warning decal "Do Not Start Vehicle While Radio Is On" is now on DA Label 132 (1 Nov 69). It's available from the Army AG Publications Centers at Baltimore and St. Louis, as well as pubs centers in Europe and the Far East. Word on it is in SB11-624 (24 Mar 70).

M113E1 Tube Life

The new M113E1 autofrettage tube for the M107 175-mm SP gun is even better than we thought. In PS 208, page 23, we said it would last 700 EFC rounds as against 400 EFC rounds for the M113 tube. New tests have shown the M113E1 is good for 1200 EFC rounds —or a gage reading of 0.200 (7.090 inches), whichever happens first.

M16 Rifle Handy Dandy

Hey, you guys . . . if you want the scoop on your M16 rifle get a copy of DA Pamphlet 750-30 (July 69). It's pocket size like PS Magazine. There are plenty copies around. Ask your armorer. A copy comes packed with each new rifle from the factory.

Case Closed?

The words "Case Closed" in an EIR digest entry normally mean corrective action has been recommended. If you take that action and the problem persists, keep those EIR's coming, like it says in para 3-7.4.1 of TM 38-750 (Dec 69).

Bare Essentials

Say your piece on DA 1352 **then stop,** you aircraft reporters. If you've got excess not-operationally-ready time due to a few parts or components, list names and FSN's of the culprits. No need to do this if many diferent items are a problem . . . just make a short summary statement. PS 211 spells out more details.

Bugged By No Supply?

Do your DA Form 2765's bounce from DS when you don't have an authorizing document to jot in Block 0 for expendable repair parts and supplies? No reason for that, 'cause AR 711-16 says in Para 9-1 that requests for expendables will not be bounced because you don't list an authorizing document. As long as it's a good FSN (in the AMDF) they have to supply the item or pass it along so GS or depot can give it to you.

Would You Stake Your Life right now on the Condition of Your Equipment?

THE NAME OF THE GAME IS 'Careful'
JUNK CAN'T BE REPAIRED AND RETURNED FOR YOU TO USE
START
You forgot to include the equipment's log book records—go back to start.
CONEX improperly packed . . . radios now junk—leave game.
Body damaged by bad towing, or slinging or hauling —miss three turns.
You didn't decontaminate before retro—go back to start.
Stripped of components and BILI—go back to start.
EQUIPMENT RECORDS, HANDLING, PACKING, DECONTAMINATING, ETC... OK... SHIP A GOOD REPAIRED ITEM TO USER— PRONTO
DS-GS-DEPOT REPAIR SHOP